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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

LECTURE VII.

Manner in which the Fœtus passes.

(Continued.)

Breech Presentations.—When the breech of the child, Gentlemen, is lying over the centre of the pelvis,—the abdomen and legs may be variously situated, in front, behind, to the one or the other side, obliquely, backward, and forward, and so on; and thus we may, if we are fond of minute divisions, produce a great variety of cases. In a view to practice, however, the grand object which we keep continually in view in these lectures, the presentations of the breech may be commodiously enough divided into *two* leading sorts or kinds; those, I mean, in which the abdomen of the child, as in the crural presentations, is lying *posteriorly*, that is, on the back of the mother; and those cases in which it is lying more or less *in front*. And if you understand thoroughly well the principles on which these two varieties of the breech presentation should be managed, all the intermediate cases may be conducted with great ease.

And first, then, of the presentation of the breech in which the abdomen of the child is lying more or less on the back of the mother. When the vertex of the child presents, I have observed to you already, that large as the head is, in natural labour, it is easily expelled by the spontaneous and unaided efforts of the womb; and thus it is with the presentations of the breech. It does not follow, because you find the breech presenting, that therefore the case is difficult, that further obstetrical assistance is requisite, that manual interference is requisite in order to secure the descent. In general, by the unaided efforts of the uterus, the nates will be gradually pushed to the external parts, in the same manner as in ordinary labours the head is pushed down into the outlet, and to these efforts we ought to trust. And when in this manner the breech is gradually descended, so that it lies at the outlet, you may then lay your finger upon the one side, and your thumb upon the other, and without violence, (a brutal error, always to be reprobated,) with gentleness and firmness, co-operating with the pains, if there be any, you may draw, throwing the body a little from side to side; often assiduously, solicitously, examining the perineum, that portion of the skin which is lying between the anus and the genital fissure, lest in drawing the nates this part should be torn. Advancing the breech in this manner, and as the part descends, carrying the back of the child towards the abdomen of the parent, you find the legs spontaneously drop forth;—what was a breech, becoming of consequence a foot presentation, to be managed afterwards by the rules prescribed in the last lecture, and in the manner now demonstrated.

To repeat: in the breech presentation, the belly of the child lying on the back of the mother, the natural efforts push the nates to the outlet; it may be in a few hours, it may be in a few minutes, the length of the time depending upon the capacity of the pel-

vis, the size of the fœtus, and the laxity of the softer parts. The breech reaching the outlet, you lay your fingers on the one, and your thumb on the other side, and solicitously guarding the perineum, co-operating with the pains, if there are any, and now and then feeling the umbilical chord, which lies between the thighs,—you draw, remembering that you are operating on the softer sex, proceeding with gentleness, and not with violence; *arte, non vi*, like *men*, and not like *brutes*, for it may be so translated.

It will sometimes happen, as observed already, that the breech presenting, the abdomen of the child may lie forward throughout the labour. Aware that under the breech presentation, the abdomen lying anteriorly, the natural efforts, if fairly tried, will commonly push the nates to the outlet; to these you ought generally to trust, though it must, I think, be admitted, that the part does not quite so speedily descend in this case as in the preceding; the nates then being pushed down upon the external parts, you may, as before, lay the fingers on the one, and the thumb on the other, hip, and swaying the child a little from side to side, and co-operating with the pains, you may draw down with gentleness, suffering the legs of themselves to drop forth. If, indeed, (ironically,) you wish to fracture the legs, you may do this with facility; put your fingers on the middle of the thighbones, give a pull with the sympathetic gentleness of a brewer's dray-horse, and you will break them easily enough, for at this period the bones are very fragile. But, as I presume you have no wish to do this, you had better, perhaps, draw forth as recommended, suffering the legs to escape spontaneously. Dr. Lowder was requested to see a woman labouring under the presentation of the nates; the labour being difficult, because the breech was large, and the pelvis small. The action of the womb being powerful, however, the breech was pushed to the outlet of the pelvis, and the accoucheur laying hold of the hips, assisted a little with his characteristic gentleness, but suffered the legs to drop forth of themselves. To this case a midwife had been called—a woman; and after the Doctor had brought away the child, she went up to it, examined the thighs, and turning round with surprise, exclaimed, Why, you have not broken the thighs! No, said the Doctor, why should I? I should not like to have my own thighs broken, and why should I break the child's? Why, said she, "*I always break the thighs!*" And this operation, it seems, she achieved, by pulling them violently in the manner demonstrated.

Let then, Gentlemen, the natural efforts bring the breech to the outlet of the pelvis, then lay hold of the hips, as demonstrated; draw down, carefully guarding the perineum, suffering the legs of their own accord to come forth, or at all events soliciting them with the utmost gentleness only, taking care lest the bones be fractured; after which, the legs being expelled, you obtain a foot presentation, to be managed by the rules already prescribed.

There is, however, Gentlemen, a second mode in which you may advantageously manage this case where the nates present, and the abdomen of the child is lying on the abdomen of the mother; and that is by rectifying the position, which may be accomplished in three modes. You may carry your hand into the pelvis in the way I now show you, when the child is at the brim, and turn the abdomen on the back. Or if the breech present, the abdomen lying forward, you may wait till the natural efforts have pushed the child to the outlet, and then slowly, and not without difficulty, you may make the turn. Or, lastly, you may delay till the legs have dropped forth, and then you may rectify the position, *arte, non vi*, provided all this can be accomplished without violence.

Now it certainly is desirable, that the fœtal abdomen should lie on the back of the mother, in these cases, more especially, before you attempt the extraction of the shoulders and head; because, as yesterday asserted, you will find the head, arms, and shoulders come away more easily when the abdomen is lying this way, than when placed anteriorly; and I should therefore recommend you, as a general practice, to turn the abdomen on the back.

Now, I said there are three occasions in which you may accomplish this; when the legs drop forth—when the breech is down at the outlet—and when the breech is at the brim. But, on the whole, I would dissuade you from making the turn when the breech is at the brim; for, to make this evolution then, you must carry your hand into the pelvis, an operation never justifiable, unless the necessity be inexorable; since in doing it, you may lacerate, contuse, and kill. It is better, therefore, to wait till the breech is pushed down upon the outlet, when you may attempt the turn by the manœuvre here shown; or should you fail in your attempts to turn when the breech is at the outlet, you may wait till the legs are escaped, when you may endeavour to accomplish it by grasping the hips with one hand, and spreading the other on the back, effecting the neces-

sary movement by the co-operation of the two.

Under the breech presentation, as before observed, if you give a fair trial to the natural efforts, in most instances the fœtus of itself descends to the outlet, the accoucheur happily having little to do, except to sit at the bed side and to abstain from injury or mischief. However, as the natural efforts are now and then insufficient to push the head to the outlet, so also when the breech is large and the pelvis small, they are sometimes insufficient to expel the nates, so that artificial assistance is necessary. Now, the methods of assisting in the breech presentations, when necessary, are the following: in the first place, you may put your finger into the bend of the thigh, acting as with a hook, and drawing down with the finger in this manner on either side alternately, co-operating with the pains, you will find that you can draw with great effect, the uterus actively assisting. Should you not have power enough to draw with effect in this manner, you may then, taking two handkerchiefs, put one over the bend of either thigh; and laying the handkerchief neatly into the fold formed by the thigh and abdomen, so as to get an even bearing upon all the parts, you acquire a hold at once firm and safe, and may extract with much effect. In cases of this kind, too, you may give assistance by means of a *blunt hook;* an instrument, however, to which I am myself exceedingly averse, as, like the finger of a rude accoucheur, it has no feeling for the mother or child. Using this method, you employ this hook of *iron*, which may at times be tried with considerable advantage, and sliding the finger, as I now do, into the fold, conducting the instrument by the finger, you plant the hook on the bend of the thigh, so that the curve has a general bearing upon the parts, the instrument not resting on its point. Remember, in using this instrument, that force will produce terrible effects, and you may occasion sloughing, or may cripple the child for life; or (which is scarcely a greater evil) you may destroy it. There is yet another mode in which you may assist the descent of the breech, and which I think worth your knowing, though I do not recommend it to general practice;—and that is by the the use of the forceps. Nor am I deterred from the forceps by the alarms of Capuron, who asserts, the use of the instrument in this case to be *toujours dangereux sinon meurtrier pour l'enfant*. He thinks you may bruise the sides and viscera of the abdomen by the application of the forceps to the breech; and so you may, if you use force; but force, I have told you, is to be exploded from midwifery. If you lay hold of the hips with the forceps, you may grasp with gentleness, and if the parts slip from the instrument again and again, so much the better, for that shows you are not using a force too great, and to replace them you see is easy. If they come away six times, apply them seven, and persevering *paulatim*, by little and little, you may at length bring the nates to the outlet. Assisting then in one or other of these modes, by the finger, the handkerchief, the blunt hook, or the forceps, even in the more difficult cases, the breech may be made to descend; yet this not universally, for sometimes there is so much narrowness of the pelvis, at the brim especially, that under the breech presentation the fœtus cannot descend at all. Now, in a vertex case, where the head could not be expelled, you would lay open the cranium; an operation this, which cannot be performed on the presentation of the nates. What then is to be done? Why, to introduce the hand, to lay hold of the child's legs, and instead of the breech, to draw down the feet, is perhaps the only practice that remains, and in this manner, the difficulty may be easily removed. And here, perhaps, some one may be disposed to say, mentally, "That thought I like; that method I would always adopt in breech presentations; it gives me a command over the child." Is this your determination—this your intended practice? Then give me leave to tell you, that you are wrong; and you are wrong, because you are meddlesome; because in so doing, you might rupture the vagina and uterus; and because, in so doing, you have less chance of abstracting the fœtus alive; for it is worth observation, that *more* children are born alive under presentation of the *breech* than of the *feet*, for under the breech presentation a groove is formed between the abdomen and thighs, where the umbilical chord sometimes lodges, protected from any pressure that occasions that interruption of the circulation to which it is liable in the crural presentations, where the chord lies naked and undefended, as this apparatus clearly shows.

Thus much then respecting the management of the breech presentations; into the consideration of them I have entered at length, for they are cases, on the whole, by no means unfrequent in their occurrence. When the breech presents, you are not pragmatically to interfere. The natural efforts commonly push the fœtus to the outlet. The natural efforts failing, you have recourse to the finger, the handkerchief, the blunt hook, or the forceps. It rarely becomes necessary to bring down the feet by the hand, but the necessity existing, you proceed in the modes demonstrated.

Transverse Presentation.—When neither the superior nor inferior extremity of the child presents, the fœtus is said to lie *across* the pelvis. Under the presentation of the *arm*, of the *shoulder*, of the *back*, of the *hip*, of the *abdomen*, of the *chest*, you have so many transverse positions of the fœtus; and those cases, although they differ somewhat as to the presentations, are all conducted essentially on the same general principle, whence the subject becomes greatly simplified; for if you thoroughly understand the principle of management in one of those cases, you can apply it to them all. Now of all the various transverse presentations which I have just been demonstrating, by far the most common and the most difficult is that of the arm or shoulder, of which, indeed, you must frequently hear mention; and therefore, without bewildering you by entering into the consideration of all the varieties of tranverse presentations which occur, and which I have seen, I shall confine myself solely to the *presentation of the arm*.

When the arm of the child is presented in the way I now show you, provided the woman have reached the full time of gestation, you cannot, in this position, abstract the child. If with ferocious ignorance you lay hold of the arm and pull (the fœtus being of the full size,) torturing the innocent child like Damien the assassin, you break, you tear it limb from limb. But if the fœtus be under the age of six complete months, the delivery being premature, then the child is so small and so pliable, that if the pelvis be large or the pains be strong, it will pass under the shoulder presentation, yet even in these cases, it is wrong to draw the child. To illustrate all this, here is a pelvis of the standard capacity, and a model of the size of nine months; under the brachial presentation, you perceive it will not pass. Here is a second model, of the size of seven months; under the brachial presentation, this too cannot be transmitted; but here is a third model, of the size of six months complete, under the strong efforts of the womb, as you perceive, it might be pushed away, so that this is one mode in which the transverse presentation may be transmitted without change of position.

It is worth your knowing further, that when a child is lying transversely, and more especially when it presents by the arm or shoulder, it may sometimes be expelled at the full time of pregnancy, with no exertions on the part of the accoucheur under natural efforts, by what Denman has denominated a *spontaneous evolution*; the arm of the child ascending a little, (not much, however, as Gooch has well observed,) and the breech descending into the pelvis, so that under the breech presentation the child comes away. In general, however, unless the child be softened and relaxed by death, it can scarcely undergo that doubling in the pelvis, which is necessary to allow of its coming forth in this manner. I suppose, therefore, that in nine cases of ten, or it may be that in nineteen of twenty, where evolution occurs, the fœtus is destroyed; and sorry I am to add, that as a general mode of delivery it cannot be relied on. How much is this to be regretted! Happy would it be for you and for the mother, and for the child, if under the arm presentation, as under that of the nates, the fœtus might be expelled unaided by the accoucheur. Many a vagina would be saved, many a uterus hereafter to be torn would be preserved, and many a death which now must take place in the course of the next few years would be prevented! But the only cases in which I can recommend your trusting to this spontaneous evolution, are those in which you cannot effect the turning of the child in the usual way, or those in which the tendency to evolve is obvious. You make your attempts and fail, then the evolution may be properly essayed; or, perhaps, examining with care, you perceive the arm moving, or by the side of the arm the thorax or flank beginning to protrude: perceiving in this manner obvious symptoms of evolution, you say, I won't interfere here; a meddling midwifery is bad, the natural efforts being clearly engaged in effecting the evolution, I will not obstruct them. I was called, some few months ago, to a case in the neighbourhood of the London Hospital, a presentation of the arm, attended by a gentleman of some obstetric tact and talent. In two minutes after I entered the room, with scarcely a complaint on the part of the woman, the arm presenting, the child was brought away. As my predecessor had been labouring without success to deliver, this speedy abstraction of the child occasioned no small manifestation of surprise, and when we were apart, my friend asked me how the —— it was possible I could deliver her so easily and speedily after he had laboured so much and to so little purpose? To say the truth, said I, I did not deliver her at all; for on reaching the bed side, I found the spontaneous evolution was nearly completed, and I had only to hold forth my hands till the child dropped into them. (Laughter.) To another case I was called, where two practitioners had tried to turn the child and failed, and where I tried myself, and failed too. Finding that perseverance would burst the uterus, let us wait, I said, to see what the natural efforts will accomplish; if they do not effect the delivery, further measures may be used, but do not let us distrust our great and kind mo-

ther too soon. In the course of an hour, the child came away under a spontaneous evolution, effected by the natural powers, and the woman did very well; and we all found that we did more service by sitting down to the dinner table than by working at the bed side.

However clumsy, and however rough, and however dangerous the practice, yet, whenever you have a presentation of the shoulder or arm, I am compelled to admit, that on the whole the best general practice is to carry the hand into the uterus, and to bring the child away by the operation of turning. The arm hanging forth, you take off your coat, remove the sleeve of the shirt, lubricate the arm, and particularly the hand, and then, *arte, non vi*, with the fear of lacerating the womb before your eyes, relentingly, tremblingly I had almost said, if indeed a surgeon may tremble, you carry the hand into the uterus, as I now do, and draw down the feet of the child, always with the risk of tearing the genitals, even when you operate in a manner the most skilful and dexterous.

I have repeatedly observed to you, that in ordinary labours you should be careful not to interfere too soon; but here is a kind of exception. Where you have a presentation of the shoulder and arm, and turning is obviously necessary, the sooner you operate the better; for if you delay, the womb may contract, and without using great force, the turning may be impracticable. As soon, therefore, as the softer parts are relaxed, and the disk of the os uteri is as large as a crown piece, and your hand, being small, may be carried into the uterus, without violence approach the feet in the way here demonstrated, and perform the operation of turning befor the water is discharged, or at all events before it has been *long* discharged; and then, in general, from my own experience I think I may say (having seen many cases) the operation may be effected, and easily enough.—*Et hæc hactenus.*

Means of ascertaining the position of the Child.—Our observations on the passage of the fœtus being concluded, I now proceed to treat of the means whereby, at the bed side in the living woman, we may ascertain the mode in which the child is descending; for it is evident that all our speculative knowledge respecting the passage of the fœtus can avail but little in practice, unless you can at the bed side, when called upon to attend a case, determine in what manner the fœtus is coming away.

The ancients endeavoured to make out the position of the fœtus by means of external examination. Neither would I have the modern accoucheur entirely neglect this manœuvre. Empty the bladder, if necessary, that the situation of the womb may be more easily ascertained; place the woman in a recumbent position, with the shoulders and legs a little raised, so as to relax somewhat the abdominal muscles, and then carry your hand over the abdomen, in order to know the form of the womb, and, if possible, the position of the child in it.

More certainly, however, and with greater ease, the modern accoucheur ascertains the position *by examination*, as it is called; that is, by touching those parts of the child, which are lying within the reach of the fingers. By this mode, when the vertex presents, it may be known from its roundness, its hardness, its sutures, its fontanels, and sometimes by a copious growth of hair. If you feel these, there can be no doubt as to the part presenting. If you make out the large fontanel, and find that it is lying as in this pelvis to the left, then the face will be to the left; if you feel the little fontanel, and that it lies to the right, then the occiput will lie to the right; and if you feel the ear, that of course indicates the position of the child's head. But you may ask me, perhaps, how are we to know the greater and the lesser fontanel? Easily; for where the large fontanel is, there you will find *four sutures*; it is the only part of the head at which four sutures may be found; besides, it is of *rhomboidal* (*diamond*) *shape*, it is of *considerable extent*, and when tangible, therefore, easily recognised. But how are you to know the little fontanel? In general with facility, because it is of a *triangular form* of *small extent*, and has *three sutures* concurrent. Feeling the little fontanel, therefore, of triangular shape of small extent, with a coalition of three sutures, you know the situation of the occiput; and feeling the greater fontanel of diamond shape of great extent, and of four concurrent sutures, you know the situation of the face. In ordinary deliveries, these nice examinations are not required, but in cases of difficulty, where help is required, these points should be ascertained if practicable, as without this knowledge a dexterous and scientific assistance cannot be administered. When the face of the child presents, you will not, I trust, confound this presentation with the breech, though the error has been committed. It is round and soft, and so far it resembles the nates; but then the *nose*, the protuberant *eyes*, and above all, the *toothless mouth* readily known, if you have been in the habit of feeling this cavity, will enable you to distinguish the face. Feeling the eyes, nose, mouth, and forehead, you will not only be able to make out the presenta-

tion, but the situation likewise; the *ears*, when felt, further assisting your diagnosis of the position of the head. A *forehead* presentation is probably more easily than any other, confounded with a vertex presentation, when you first feel it. On examining the forehead, you say to yourself, complacently enough, "O, this is a natural case, I shall soon get away." But when you come to examine the case again, feeling what you take to be the sagittal suture, and tracing it to the one extremity, you find there the large fontanel, and on tracing it to the other extremity, your fingers are conveyed to the eyes and nose, when the nature of the case is obvious enough, so that you find you have been congratulating yourself too soon. Where the breech of the child presents, you will recognise this part by its roundness and softness, by the cleft between the buttocks, the genitals, the anus, and if the fœtus be a male, by the scrotum. And do not take a lancet to lay open the child's scrotum, with risk of injuring the testicles; for in these breech cases, where the child is a male, there is sometimes, I suspect, a little water lodging there; and some practitioners, thinking they feel fluctuation, may be impelled, perhaps, to tap,—a meddlesome operation, for which no necessity exists. When, then, you have made out the breech by these indications, the roundness, the softness, the cleft between the buttocks, the scrotum, the genitals, and anus, you will be able, with little further examination, to decide whether the abdomen of the fœtus is lying on the back or front of the parent, as here demonstrated. The arm presenting, you may, if you are *omnipotent in ignorance and negligence*, (laughter,) confound it with the leg; and I have known this feat achieved, though with ordinary care, and under ordinary circumstances, the error is scarcely possible. *Nil mortalibus arduum est.—Cæcum ipsum petimus stultitiâ.* But there is more difficulty in discovering the presentation of the shoulder; so much so, indeed, that even an experienced and good accoucheur may be deceived here. He feels a roundness and hardness, which he mistakes for the vertex; and it may require no small share of examination and discrimination to distinguish between these parts, when the shoulder is altered by compression. The only way of distinguishing, is by making an extensive and repeated examination, when you feel the ribs, the axilla, the arm, and the cleft between the arm and sides, by which the presentation may be pretty clearly ascertained. Under a first examination, you may be easily deceived, but you must make the examination very carefully and repeatedly, as distinction is of the first importance; for if it is a vertex case, you are to do nothing, and if on the other hand, the shoulder present, and hence the weight of the observation, it becomes your duty to turn the child as soon as the feet may be approached. The best mode of making out the position of the child's legs in these cases, is, by examining the position of the hand. When my hand, for instance, is stretched from my side, intermediately, between supination and pronation, the palm is in the direction of the abdomen; the back, in the direction of the back; the thumb lies towards the head, and the little finger to the feet. Now, let us apply this to the case before us; and suppose that you can see only the hand of the child; if the palm is lying in front of the mother, then the abdomen must be in the front, and the legs too. The thumb lying to the left side of the pelvis, I know the head is to the left side; the little finger lying to the right side of the pelvis, I know the feet are there, as you may perceive on removing this handkerchief. Now, knowing this, you may carry up the hand directly to the feet, and are not compelled to enter the womb at random, and to go roaming after the feet, over all the regions of the uterus, for a quarter of an hour, perhaps, before you find them.

In order that you may recognise the child by the parts mentioned, it is absolutely necessary that you should have been in the habit of frequently examining those parts. Now the readiest mode of becoming familiar with the presentation is, to take every opportunity of examining children after birth; and if you do this, in the careful manner in which you ought, after having attended twenty labours, you may become better acquainted with the touch of the different parts, than the man who, in a hundred cases, has been at the bed side like the pet lap-dog, and who has examined perhaps with little more intelligence and attention. If you have a case in town, for instance, every time you call you should take the child into your hands, and examine the characters of the different presentations,—sometimes the head, with its sutures and fontanels,—sometimes the face of the child, with its eyes, nose, and mouth,—sometimes, and with equal solicitude, the other presentations, the shoulders, the back, the abdomen, and the nates. Again, in order that you may examine well and successfully, it is not only necessary that you get a thorough knowledge of the tangible parts of the child; but it is necessary further, when the examination is made, that the woman, if possible, should be lying *perfectly quiet*. Now, in many instances, women are so irritable and inflamed, in cases of difficulty especially, that they cannot lie still. In these circumstances take away blood, foment the

parts, give sixty or eighty drops of the tincture of opium, or a corresponding portion of Batley's anodyne, and, in a quarter of an hour or twenty minutes, perhaps, you make the examination without disturbance. When examinations are made, the posture of the woman may be various. The ordinary obstetric position is, perhaps, on the whole, the best. If you wish to examine with nicety, let the woman lie on the left side, close upon the edge of the bed, the abdomen facing a little downwards, the bosom thrown upon the knees, the shoulders lying forward, and the loins posteriorly, the very reverse of the position in which the stupidity of the nurses generally places them.

I would recommend you to examine with *both hands*, and with dexterity too. Nature has given you two, and why not employ them? Make the most of them you can. When learning, examine with the *right hand*, as often as with the left; for there may be cases, in which it is necessary to get the equal use of both sets of fingers. But, in saying this, I would add, what is not an unimportant truth, that (the woman lying in the ordinary manner) you will never examine so well with the right as with the left hand; therefore, by all means learn to examine with the left. I am told by practitioners, that they can examine well enough with the right hand; but I have seen the best accoucheurs, and particularly one very able man, who has been twenty or thirty years in practice, and who has delivered far more women than I have done, or ever shall do, who could not by any possibility do that with the right hand, which I easily accomplished with the left. Where a woman was supposed to be pregnant, I put *both fingers* into the os uteri, and felt distinctly the head of the fœtus, although, after examination, he remained doubtful of the pregnancy. Now, I am persuaded, that the only reason of his failure was, that he used the right hand in his examination, in place of the left. By all means, therefore, use your fingers—your fingers of both hands, but give those of the left hand a preference over those of the *right*; if you examine well, you may actually carry the *two first joints* of the fingers completely *above* the linea ileo-pectinea, while an awkward accoucheur scarcely reaches the brim. In ordinary cases, this is so much the better, for deep penetration is not required; but, in extraordinary difficulties, when nature calls for help, unable to ascertain the position of the child, they don't know how to assist her in a scientific manner.

There is another hint I would give you relating to this important operation, which is, that you are not angels, and need not, therefore, give yourselves celestial airs affecting intuition. Do not content yourselves with merely sliding the fingers a little way up into the vagina, suddenly and smilingly exclaiming, "O, a presentation of the vertex;" for, perchance, it may turn out to be the shoulder, the breech, or the forehead that presents, and to your very great discomfiture, you find, after all, you have mere mortal knowledge—*humanum est errare*. Now I would advise you, in all cases where there is difficulty, to make your examinations repeatedly, slowly, and to examine every part that lies within reach. You cannot feel too carefully, if the examination be really important. If you affect this intuitive mode of deciding, at first touch, what is the presenting part, you will be precipitate and err; but if you take pains to examine, if you insinuate the finger far, and make your examination completely, familiarising yourselves with the touch of the different parts of the child, you will come, in general, to a correct conclusion. When examining, some introduce the whole hand, (a bad practice,) and some a single finger only; if you can succeed with one finger, that should be preferred; but, as a general mode, the better method is to introduce *two fingers*—the *first* and *second* of the left hand, the nails being pared and lard being applied abundantly, especially about the *knuckles*. You should, too, carry the fingers far into the pelvis. When first making the attempt, you will, perhaps, not be able to advance sufficiently, but keeping near the front, a deeper penetration may be easily accomplished.

These then are the principal points to be attended to in making your examinations: first, be familiar with the feeling of the different parts of the child (and I have told you how to acquire this familiarity). Then, in *ordinary* cases, make your examinations *carelessly*, if you please; but if you wish to examine with nicety, place the woman on her left side, close to the edge of the bed, the knees and shoulders lying forward, and the nates posteriorly. Let the parts be prepared for investigation by opiates, fomentations, and bleeding, if necessary. When learning, examine with the left or right hand fingers; sometimes with both; always with tenderness. Never interfere, except where it is necessary; and where it is necessary, carry the fingers as far up into the pelvis as may be. Do not, in dubious cases, decide hastily, from one examination only, but make your examination more than once.

I shall proceed, Gentlemen, when we meet again, to consider the softer parts of the pelvis, and the effects produced on them at the time of parturition.

LECTURES

ON THE

INTELLECTUAL COMPOSITION OF MAN,

Delivered at the London Medical Society by

DR. HASLAM.

Lecture V.

On Thought.

This Lecture being considered one of the most important in the series of the present course, and as it is my object to convey its substance with the utmost perspicuity, this endeavour will, I hope, apologise for such repetitions as may be considered necessary for the purpose of elucidation.

It will be recollected, that when we entered on the subject of the physiology of mind, it was proposed, in the first place, to ascertain, according to the nature and construction of a newly-born infant, what were the circumstances of this state of existence, that act on it to continue life, and to display its intellectual phenomena? And secondly, what does its mind subsequently derive from its own elaborations? The former question, as far as it relates to its intellectual acquirements, has been discussed in the lectures on perception, memory, volition, language, reason, and imagination; and it now remains, to examine the nature of our acquirements, from the distinct operation of the mind itself. Thought and Reflection, are used as terms importing the same signification: but to the present time, it is not clearly ascertained, what is, or ought to be, the meaning of either. Thought, I should define, to be that operation of the intellect, whereby it elaborates its peculiar and intrinsic attainments. It is the active operation of the mind; it implies knowledge as its basis; that is, the recollection of its perceptions and imported information: it requires the power of fixing the attention to the subject, which is an act of volition, and it includes the exercise and estimates of reason: and this co-operation is necessary, to constitute the process of effective thought. Thought, is therefore a complex or general term, involving the premises above mentioned. Thus, the recollection of our perceptions, or of the information or knowledge we have imported, is merely an act of memory: to narrate events in the order of their occurrence, or to recite by heart so many sentences or verses, is likewise an act of recollection: but as we cannot think without materials, the recollection of these perceptions, or of the terms that by convention represent them, is indispensable. Let it also be understood, that whatever may be the subject of thought, if the attention necessary for its investigation be not applied, the efforts will be ineffectual, and the mind will wander, or ramble from one subject to a variety of others. Notwithstanding the most enduring attention, if the estimates, proportions, or calculations of reason, be not brought to bear on the particular subject, the mental elaboration will be rendered vague and hypothetical; and it must also be taken into the account, that *language* is the medium in which thought is conveyed: and according to my own views of this process, language is also the medium in which it originates, or by which it is conceived.

Of all the difficulties which man has to contend with, the prejudices of early education, are the most obstinate and insurmountable. Many opinions have been imbibed with our earliest advances: they have been impressed by authority, at an age when the mind was inadequate to form its own judgment, and subsequently, have been rivetted on our intellectual frame: in some instances by the promise of advantage, but more frequently by the excitement of terror, or by the denunciations of punishment. These prejudices subside deeply into the recesses of our mental constitution; and in their secret growth traverse to such an extent, that it is impossible wholly to eradicate them.

Of this nature is the general opinion that has been formed concerning thought, or the act of thinking. It has been considered altogether a *spiritual* process, and it has likewise been held, that any other manner of interpretation, would introduce and countenance materialism. This is a most mistaken and absurd inference, and appears to have arisen from our ignorance of the actual nature of the process of thought. In a former lecture it has been explained, that all the living functions, and all the intellectual capacities on which the mind is built up, are to be considered as the endowments of a divine cause, and are not to be expounded by any material solution. Ordinary observation will convince us, that the human mind is reared, or formed, by the excitations of the external world, and from its own intrinsic achievements; and the assumption of a spiritual interference would destroy the whole fabric of intellectual physiology, and abolish the responsibility of man. The philosophers to whom I allude, have conceived thought to be some spiritual contrivance or elaboration, and for the purposes of communication, have supposed that it afterwards became invested with the appropriate term: in fact, according to the

manner in which we ourselves enter the world, the abstract thought comes naked into the mind, and for its appropriate display, is subsequently clothed in language. But of these secret workings of the spirit, entelechia or soul, we are not conscious; nor are we aware of any effort we make to array them in a befitting garb: and yet, we are conscious of all our acts of intelligence, or mental exertion. We are conscious that we perceive objects by our different senses,—we are conscious that we know, or are acquainted with them when they recur,—we are conscious, that by an act of the will, we can in many instances recal or remember them,—we are likewise conscious, when such privation occurs, that we cannot recall or remember them:—we are conscious, on some occasions, that we recollect the *object itself* when presented, but cannot recall or remember the *name*:—we are conscious of directing and confining our attention to any particular object or subject; and we are equally conscious, when we employ degrees of comparison, or numbers, to form the estimates or calculations that are denominated reason.

It has been already ascertained, that we can have, by recollection, phantasms only of visible objects; and that the perceptions of the other senses, (excepting in certain morbid states) can only be represented or recalled to memory by words. Where shall we then find the phantasms or naked abstractions of perfumes and stenches, excepting in the name? Where but in the viands and beverage themselves, or in the words by which we have designated them, is the spiritual basis of those articles of food and potation, which invite or disgust the palate, to be found? What phantasm or naked abstraction can we recall of the perceptions we receive by the organ of touch, but in the *words* we employ to discriminate the qualities of the substances we feel?

It is a common expression, that we are astonished, or lost in amazement, at the rapid succession of our thoughts; but according to the spiritual interpretation of thought, we ought to be impressed with two-fold wonder; as according to the common opinion, it is a double process; namely, the conception of the naked thought, and its subsequent investment in language. When we are asked a question, the *words* which convey its meaning, are sufficient to enable us to comprehend it, and the spirituality, if any, must be contained in the words themselves:—and when we read, the mere words, if judiciously selected, and properly arranged, convey the sense of the author;—and by these *words alone*, we are enabled to estimate his knowledge and talent; and if he had lived two thousand years ago, his words are as intellectual, and as fully impregnated with the spirit of his mind, as at the moment he wrote them. Man, and the rest of the animal creation, enjoy but a limited existence, they perish, and decompose into other forms of matter:—the vegetable kingdom moulders away:—metallic substances oxydize, even marble is corroded and exfoliates:—but words remain unchanged, and survive the extinction of the race that produced them. These *words* constitute the immortality of thought;—they are the perpetual lamp by which we peruse the achievements of heroes, and the wisdom of philosophers;—the splendour and subversion of empires;—and they possess the incitements to feeling and enthusiasm,—they animate us by the force of example, provoke mirth, excite pity, and constrain tears; and from distant ages, kindle the holy flame that ascends from the altar of liberty.

The advocates for this spiritual conception, which is said to constitute the naked and abstract thought, and which is afterwards clothed or fitted with a term; have not even attempted to explain how they are impressed, when this naked or abstract thought is presented to their minds: and it is certain that it must remain a secret, an inviolable secret, until it is conveyed by *words* to the ear, or by characters to the eye: and they have still less detailed the process by which the naked thought accommodates itself with the appropriate term, from the vast vocabulary, of which even ordinary minds are in the possession. According to this hypothesis, it may be supposed, that when the word is uttered to the ear, or conveyed by characters to the eye, the spiritual connexion ceases, or, that the co-partnership is dissolved, and that the spiritual portion retires into some recesses of the sensorium, to be in readiness for a future occasion, or "wastes its sweetness on the desert air;" but of this *separation* we are as little conscious, as we are of the imaginary union. If this be not the process, then we may conjecture, that the spiritual influence continues to adhere to the word, both when it is uttered by the voice, and exhibited by characters to the organ of vision. There is, however, but little probability that words possess any thing but their intrinsic meaning, or the sense annexed to them by convention or authority; and which is unfortunately subject to certain shades of difference, and degrees of variation; and sufficiently account for the disputes and contentions that have arisen on many important subjects of discussion. Those who have contended for the spirituality of thought, have assigned to this phantasm, if such it be, other and more important offices. It has been supposed to possess a presiding and directing power over the mind; influencing human actions; and

has accordingly been considered as a silent monitor in affairs of intricacy,—guarding us from the temptations that surround our species, and over-ruling our evil tendencies. It must be evident, that the admission of such a principle, would be equivalent to the endowments of instinct, and would not only place us on a level with the brute, by superseding the counsel of our reason, and circumscribing the freedom of the will:—but such acknowledged actuation would destroy the whole of our moral responsibility. When I have so strongly contended against the spiritual constitution of thought, and more particularly, against its presiding and directing energies, it must not be inferred that such opposition has a tendency to support any principles that conduce to materialism. On the contrary, it was impressively stated at the commencement, that all the vital phenomena, and displays of intellect, resulting from a conjoined system; so far from partaking of a material character, were repugnant to such explanation, and could only be viewed by the philosopher as the establishments of divine wisdom, and differing altogether from the exhibitions of matter. However mysterious and inscrutable the nature of the capacities may be, by which we perceive, remember, exert volition, and commute the perceptions of the objects in nature for a significant sound; yet the steps and progress by which the mind is built up, reared, or constructed, by the excitements of the external world, and by its interior operations, are fully displayed, and become the fair subjects of observation and experiment.

"Nec Deus intersit, nisi dignus vindice nodus.
Inciderit."

If it were necessary to continue this refutation of the spiritual agency of thought, a doctrine, which its advocates have in no manner condescended to stabilitate by any arguments, excepting the supposition that its rapidity was so wonderful, as to render it inexplicable by any other hypothesis; we should of course observe, that a process so important, must be subject to certain laws or regulations, and which, from the consciousness that attends every mental act, we should be able to discover. These advocates, however, have neglected every attempt of this nature, and to them our thoughts appear to

"Come like shadows, so depart;"

or to be

"——likest hovering dreams,
The fickle pensioners of Morpheus' train."

If our minds have been properly disciplined, we are fully satisfied that we possess the power of thinking or reflecting on any subject, by a process of which we are conscious, without any spiritual promptings. With regard to the rapid succession of our thoughts, it is most evident that the current would be impeded by the double process, of first conceiving the marked thought, and subsequently clothing it with the befitting expression. Let us, however, advert to the difficulties we experience, and to the tardiness of the process by which we learn to read; which consists in acquiring the elementary symbols of letters, called the alphabet: when these have been rendered familiar to the eye, and the articulate organs have been drilled to pronounce them, and the ear has adjusted the imitation of the sound: these individual letters are to be joined to form syllables, and these united to compose words, which words, possessing their intrinsic meaning, are to be arranged into sentences; and of a greater or less number of these sentences, all books or volumes are composed. When we duly consider the time that is consumed in this elementary attainment, and contrast it with the celerity, with which in our maturity we can peruse pages of light and entertaining reading, and imbibe the contents: much of the astonishment at the rapid succession of our thoughts will vanish; and a further illustration may be adduced in the extreme quickness with which some persons accustomed to figures will cast up the long columns of a ledger. If our perceptions be the elements of our thoughts, as letters are of words and sentences, there can be no reason to suppose, that our thoughts succeed more rapidly, than our perceptions are attained by the sensitive organs; and if they were to succeed faster than the voice could utter them, they would be of no utility, and tend only to our embarrassment. It is often asserted by undisciplined orators, who are unable to proceed in their attempts, that they are overwhelmed by the rapid flow of their thoughts; which assemble so multitudinously that they cannot be individually apprehended: this is however but mere assertion, and a very lame apology for confusion of intellect. It is fair to infer, when this happens, that the naked, abstract, or spiritual thought, is of no use, and ought to be regarded as an inconvenient and distressing intrusion,—and it may be remarked that this supposed tumultuous assemblage of thoughts, is not very dissimilar from the ordinary character of delirium. Whoever has perused a great number of volumes, without the attention to understand them thoroughly, or has not duly reflected on their contents, so as to identify them with his own thoughts, will never be able effectually to proceed beyond a few sentences: and this arises, not from an overflow of intellectual material, but from a

lack of comprehension, digestion and arrangement. In like manner, many persons will correctly describe events they have witnessed in the order of their occurrence, but if this series of narration be disturbed, they become confused and are unable to proceed. In a similar way we learn the multiplication table in a regular routine, and continuously, are able to repeat it: but although the pupil can perform this, it is a considerable time before he can invert the order, or answer an individual selection; which accords but indifferently with the unerring dignity of a spiritual basis. By proper discipline, and a cultivation of the habits of reflection, we may render the act of thinking, to a considerable extent, subject to the will: that is, we may become enabled to direct our thoughts to particular subjects, and likewise, to protract the process; and this effort of the will, is termed attention. We can well understand this voluntary direction of our thoughts to particular subjects, and become sensible of its protracted endurance; but if our thoughts consisted of these spiritual abstractions, which fortuitously present themselves, and vanish spontaneously, they would be *involuntary*, supersede the necessity of cultivation and intellectual discipline; and might be compared to the involuntary actions of the heart, or the peristaltic motions of the intestines.

Having thus endeavoured to subdue the existing prejudice, that thought is a spiritual elaboration, and a twofold process; it now remains to investigate its nature, as the most important subject of intellectual physiology, and to demonstrate its constitution from observation and experiment. The perfection of the human intellect, in comparison with the mental displays of animals, consists in the capability which man possesses, to communicate and preserve his intellectual acquirements: and this distinguishing excellence animals are incapable of attaining by any mental exertions of their own, or by any mode of tuition: and this fact sufficiently explains why animals are stationary, and man progressive. If we inquire the means by which he can communicate and preserve his intellectual attainments; the answer is immediately afforded, by *language*, and the symbols that represent it: and to the acquirement of which, no animal is competent. Some of the bird tribe, as formerly observed, may be taught to pronounce many words, and even sentences, very distinctly; but no evidence has yet transpired to convince us, that they possessed the slightest comprehension of the meaning of the sounds they have been taught to articulate: nor is it possible, by the united perceptions of the eye and ear, to impress on them that each alphabetic character has its separate and appropriate sound. This is the manner in which the child is taught the elements of reading, but without any such instructions, the child by continuing in the society of human beings, will acquire the spoken language of the people with whom he resides; whereas the most docile animal, after continuing in the same family for years, will never be able to comprehend an ordinary question, and still less to communicate the proper reply. It is not necessary to give the solution of this difference between man and animals, and point out wherein the incapacity of the latter consists: it is sufficient for the present purpose to know the fact. By the acquirement of language, man is enabled not only to employ a word, which by convention is the substitute for the natural object, but likewise various adjected particulars, as colour, shape, magnitude, motion, weight, smell, taste, peculiar sound, and tangible impressions, and also by the register of a word, he can designate the order of events, and characterise that which has preceded, and that which is subsequent. In fact, language, by the construction of sentences, affords us the means of communicating all the forms and vicissitudes of the external world, as they have occurred to ourselves, and as they have been observed by others: to describe the emotions we feel, and the peculiar notions or thoughts, which our own minds have individually elaborated. From the constant employment of language, we become so familiar with words, their accredited meaning, and skilful arrangements for the purpose of intelligence, that they constitute the identity of our minds. Of visible perceptions, by strong recollection, we retain the images or phantasmata in conjunction with the word designating such object; but not of the perceptions of the other senses; and it is evident that the mere phantasm, without the word, could be of no utility for direct communication. Thus words are intelligibly communicated for our actual perceptions, and this commutation must necessarily be adopted for every event that has passed, especially for all transactions anterior to our own existence, and for the observations of others. Of what can our thoughts then consist but in the application and arrangement of appropriate words? There is an intellectual capacity connected with a living system, by which man acquires knowledge, but words are the medium by which such knowledge is attained, and when he proceeds to review or extend such knowledge, *its constituent elements must be employed*. If the spiritual doctrine has been refuted, there remains no other source of our thoughts but that of words; or sounds bearing an intrinsic signification; and when we consider the im-

mense catalogue or vocabulary which we possess of these words, our conviction will be strengthened, and we shall also find, that by the increase of knowledge, and the progressive improvements of the mind, the stock will be considerably augmented. It is not to be inferred, that we think exclusively by individual words, for we think also by sentences formed into maxims, proverbs, and aphorisms, which are known and undisputed truths, and the result of systems abbreviated for convenience and dispatch. In proportion to our intellectual advancement we frame abbreviations, not only of words, but of sentences, and such condensation or short-hand, as is applied to written character, may be equally adapted to the forms of speech as the material of thought. If these reasonings should not be altogether satisfactory, it only remains to make the direct experiment: and the apparatus for this investigation is furnished by the mind of every individual.

The basis of thought is knowledge, for without knowledge as the indispensable substratum, there would be no materials for its operation; and the endeavour, even in our waking moments, would only be a confused assemblage of occasional phantasmata, and words without arrangement, like the insubstantial tissue of a dream. As we are likewise conscious of all our intellectual processes, we shall find, on a patient examination of our own minds, during the act of thinking, that we are occupied in the selection of words, and in their arrangement into sentences: and, by due attention, we can detect ourselves in the actual performance of this operation. For this purpose, it is necessary that we should acquire a competent degree of control over our minds:—that we should be alone, and exempt from all interruption:—and for the due performance of the experiment, should select a subject, with which we are but little acquainted, which renders the process more deliberate, and consequently of easier detection. On subjects that are familiar, that we have frequently investigated and discussed, there is acquired such a rapidity of exercise, that the detection of the process becomes considerably more difficult. By attentively contemplating the knowledge we possess on any particular subject, and which can only be revived by words,—we shall find that the arrangements we make, will be, either by words according to grammatical construction, formed into sentences by phrases, maxims, quotations from authors that illustrate the subject,—or by known truths, definitions, or axioms, that we hold as accredited data. Whenever our thoughts are employed on the objects we have seen, the visible phantasms of these objects,—if the memory be sufficiently retentive of the perception,—will be presented in conjunction with the word, and the operation, in the different steps of its progress, must be submitted to the estimates and calculation of reason. In some persons this process is perfectly obvious, and we are able, when they are occupied in thought, to observe the motion of their lips, as when they are speaking aloud:—and according to my own observation, the same motion of the lips is noticeable in the generality of persons when they are counting,—an operation, that is perhaps more difficult than the ordinary selection of words for the materials of a reply, as the slightest error would destroy the whole process, and compel us to commence anew.

Thought, comprising its enumerated constituents and detailed process, is the most perfect and exalted elaboration of the human mind; and when protracted is a painful exertion; indeed, the greater portion of our species reluctantly submit to the toil and lassitude of reflection: but from laziness, or incapacity, and perhaps in some instances from diffidence, they suffer themselves to be directed by the opinions of others. Hence has arisen the swarm of critics and reviewers, those clouds that obscure the fair light that would beam on the mind of man, by his individual reflection, and through his existence degrade him, by a submission to assumed authority;—a voluntary blindness, that excludes him from the observation of nature,—and through indolence and credulity render his noblest faculties, feeble, assenting, and lethargic: and delude him, to barter the inheritance of his intellect for a mess of pottage. It must be the result of every man's experience, that when our thoughts are long confined to the investigation of a particular subject, that its continuation beyond a certain duration becomes irksome:—that our further efforts produce languor, and are found to be unavailing:—and should this notice fail to discontinue our attempts, that confusion necessarily ensues. It is with the mind, as with the body,—for in this state of existence they are inseparable,—that regular exercise will confer vigour on the muscles, and enable them to continue their exertions for a longer period, without fatigue:—so by assiduous discipline our intellectual application may be considerably protracted:—and, to employ a common metaphor, although the mind of one man thus trained, may continue on the wing for twice the duration of another; yet there is a period when his efforts must terminate, or distraction will supervene. As that exertion of the will which we term attention is thus limited, and as the active process of thought implies this fixed and concentrated attention, we ought, in the next place, to inquire what must be the condition of the

mind, when we are unengaged by any direct mental occupation, and when the volition is consequently relaxed? It will be found that the phenomena vary, according to the degree of volition that is exerted. Perhaps sleep, especially that which is termed sound or profound sleep, is the state that ensues, when the influence of the will is most completely withdrawn, and during which there is an abolition of consciousness: but in addition to this absence of volition, there prevails a diminished state of the sensibility:—the sensitive organs are not stimulated by the ordinary intensity of excitation which urges them to perceive when we are awake, and the involuntary motions are also considerably less active. In that sleep which is less sound and refreshing, there are usually observed certain mental excitations or intrusions, which have been variously considered as phantasms, delusions, or sallies of imagination, denominated dreams, and in these the will appears, on many occasions, to possess considerable activity; as, according to the impression, we endeavour to avoid danger, and exert our efforts to attain objects of desirable possession. It is not here intended to investigate the nature of sleep, together with its mental ecstacies and perturbations; although its importance in the animal economy demands a profound investigation: the present inquiry only extends to that state of intellect, which exists in our waking moments, when the attention is relaxed, and the energies of the mind are not directed to the rigid examination of particular subjects. The state of being awake, implies a promptitude for action in our corporeal frame; and also that the organs of perception, are prepared or on the alert, to be excited by the objects in nature, according to their separate offices; but it does not imply their immediate or active exercise; and with regard to the other operations of the intellect, it presumes the capability of their display, but not their actual performance. It is well understood that this relaxed state of our mental energies, during the time we are awake, has been termed reverie, musing, and some persons have considered it as a kind of day-dream, or dreaming awake. We have already admitted the power we possess of directing the mind to any particular subject of thought; but it is equally true, that we are *not* capable, by any voluntary exertion of clearing or evacuating of the mind, during the time we are awake, of its exciting assemblage of those abrupt phantoms and floating recollections that constitute reverie: for it will be seen that the possession of such power would enable us voluntarily to produce sleep. Thought being considered a voluntary exercise of the intellect: the only solution I am able to afford concerning the nature of these reveries, is their resemblance to those perceptive mutilations which ocular spectra present, and which are involuntary phantasms of a particular organ. But they are more intimately allied to our dreams, which are likewise involuntary presentations, and are the spectra, not of the mere organ, but of the entire intellect, and like our reveries, vary in consistency or abruptness in proportion to the degree of the relaxation of the will. In this unbraced state of the mental faculties, the subjects that intrude are transient and indistinct, the mere glimpses and shadows of effective thought.—Under the influence of these day-dreams, we often find ourselves occupied on some subject, but are incapable of detecting how it was introduced; and we lose it without any knowledge of the manner of its escape In many instances, these musings are blended with particular passions, and rendered more vivid by our hopes and apprehensions. Sometimes we indulge in the golden prospects of opulence and advancement, or fascinate the sense with the projected enjoyment of a higher rapture,—extend the views of ambition—and multiply the sources of gratification and happiness.—At others the scene changes to gloom and dismay, our mental wanderings assume a hateful tinge, we appear destined to exchange our present condition for the poor-house or the prison, and the probable future only suggests a succession of miseries and disaster. In these phantastic visions, which can only be accounted for by the relaxation of the attention, the defect of that energy which contributes to effective thought,—many of our species consume a considerable portion of their time, and according to the temperament that may prevail, their lives are chiefly passed in the ideal grasp of unattainable wishes, or in the despondent forebodings of a pusillanimous spirit. From the nature of the human mind, from its necessary union, in this state of being, with a living system; and from the due consideration of that condition, which we denominate *being awake*, contrasted with the phenomena of sleep: we shall be aware, that in our waking moments, some degree of mental activity must prevail. The very nature of vigilance, implies that susceptibility and readiness of the perceptive organs, that they become excited by their appropriate stimuli: and the connexion that subsists between our recollections will of course operate to continue the excitation. These reveries, notwithstanding they may serve to revive some memoranda, that would otherwise have faded, are the offspring of indolence and retirement:—the scattered spawn of that instability of character, which a generous intercourse and fair competition with the world

would have fixed and matured. These illusive idols of the mind,—these broken toys of vanity and imagination, like the clouds that pass over us in succession, leave scarcely a trace of their figure; and although such day-dreams may be estimated by their idle votaries, as delightful pastimes, they will be considered by the philosophers, as the bane of salutary thought and a loss of our existence.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XI.

On the Difference between Quantity and Intensity of Electricity; on the Natural Phenomena connected with Electricity; and on the Excitation of Magnetism by Electricity.

Gentlemen,—The conclusion of the last lecture brought us to the subject of chemical decomposition, as connected with electricity, and it will be remembered, that we found that the different elements of bodies were attracted by different electrical poles, according to certain laws; and that when we submitted substances considered as the proximate elements of bodies to electrical action, we found that the acids and substances containing oxygen, and other supporters of combustion, such as chlorine, iodine, and fluorine, were attracted by the positive pole; and that the alkalies, metallic oxides generally, and all substances in which the inflammable elements predominated, were attracted by the negative pole; so that we came to this general conclusion, that among the elementary bodies, a certain number would always be attracted by the positive, and a certain number by negative poles. Now this is found to be the case in all instances when substances are submitted to the action of the poles, with freedom of motion in the presence of water; and we find that the hydrogen of the water, with the inflammable element, whatever it may be, goes to the negative poles; whilst the oxygen of the water, or the acidifying principle, is attracted to the positive pole. We therefore had occasion to point out that a division of bodies might be conveniently founded on these facts, arranging them into two great classes, the *electro-positive* and *electro-negative* bodies, and this is the arrangement we have adopted in this course of lectures; and although there may at first appear to be a little confusion of terms, yet if you only remember that there is an electro-positive side of the battery and an electro-negative side, I think you will have no difficulty in recollecting the nature of the division which has been made.

Now, in the experiments you saw the other morning, there were some facts loosely passed over, because our time did not then admit of discussing them more fully, relating to *quantity* and *intensity* in the Voltaic apparatus. It might have struck you with surprise, that although we had an instrument capable of deflagrating the metals, and of keeping up a strong current of electricity from the two poles, yet that I could handle the wires without feeling any powerful shock; but that depended upon the *intensity* of the pile. If I had used a great number of small plates instead of a few large ones, I should not have obtained the brilliant effects which you saw, but I should have had a more powerful shock, and there would have been a greater tendency in the electricity to escape through bad conductors generally; and you must remember, that the human body is a bad conductor, and that the cuticle, more especially, is a non-conductor, and therefore requires a powerful *quantity* of electricity to pass through it, so long as the cuticle is dry; but if you moisten it you will have a powerful and painful shock produced by making a communication between the body and the poles of the battery.

These distinctions between quantity and intensity were admirably illustrated by Mr. Children, who constructed a battery, the plates of which were two feet eight inches wide, and six feet high; they were twenty in number, and were fastened to a beam, suspended by counterpoises from the ceiling of his laboratory, so as to be easily immersed into or withdrawn from the cells of the acid. The effects of this apparatus upon wires and good conductors were intense; he could easily fuse the metals, and he kept a piece of platinum wire in a state of red heat for a long time; the light, too, was intense, but not the slightest shock was felt when the conductors were touched; so that, you observe, when we increase the amount of *surface* we increase the *quantity* of the electricity; but when you increase the *alternations* you increase its *intensity*.

Sir Humphrey Davy has thrown out the idea, that the electrical and chemical powers of bodies may depend upon one and the same cause; that this cause acting upon masses of matter, exhibits itself in the natural phenomena of attraction and repulsion, and that acting upon particles of matter, it

produces chemical attraction and repulsion; so that when bodies, in opposite states of electricity, are brought together, they unite chemically, and that the phenomena of heat and light which attend the union of some bodies, may be produced by the destruction of the two electricities. Thus far has theory carried us.

I adverted to the chemical effect which the fluid, intervening between the two poles of the pile, was supposed to have in increasing the quantity of electricity; and to illustrate this, I shall take some vessels containing water, a weak acid, and a stronger acid. With the water only, I find that very feeble effects are produced, no spark can be produced; with the weak acid, a spark is produced; and with a stronger acid, a permanent light is obtained. It is clear, then, that independent of the surface of the plates, we have a mode of increasing the quantity of electricity by the fluid which we may place in the cells of the trough. Here is an apparatus, consisting of a series of about two hundred plates, about four inches by six; by immersing them in water, containing about thirty parts in the hundred of acid, you see that from the poles of this battery a brilliant spark is kept up, and of sufficient power for all the experiments to which electricity is usually applied in chemistry.

I have spoken, in various parts of these lectures, of *currents of electricity*, and I have talked of currents passing from one direction to another, passing from the positive to the negative pole. Here is a wire connecting the two poles, and we imagine that a current of electricity is kept up, by passing from the positive to the negative pole, and that this current is continued throughout the apparatus. This is an hypothesis, which is true, as far as it goes, respecting the current; and now, if we apply a magnet to this wire, we shall have *magnetic action* exhibited, and that of a very singular description. You see that the poles of this magnet run in the usual magnetic meridian, but if we bring the magnet under the wire conducting the electrical current, we shall find that the direction of its poles will be changed, depending upon the direction of the electrical current in that wire; and now strange to say, the south pole of the magnet is pointing north, and the north pole, south. The observation of this fact, originally made by Oersted, has led to many other important experiments of another kind, connected with the magnetism of the wire: and these discoveries have led us to suspect, that the existence of a *magnetic vortex*, or a magnetic current put into motion by the electrical current of the wire, giving rise to this phenomena. If we reverse the direction of the electrical current, and reverse the direction of the magnet, it is a fact worthy of observation, that the wires connecting the poles of the battery are in a magnetic state, which may be shown by their power of attracting iron filings; and we shall find that the quantity of iron filings which will be attracted by the wires is very considerable, but that the filings immediately fall off as soon as the connexion is broken between the battery and the wires. Hence it is very evident, that a magnetical current is connected with the electrical current. I wish only to point out to you a few leading facts, and our time will not allow us to do more. Suppose we take a bar of steel not magnetised, and place it at right angles to the conducting wire, we shall find that it becomes magnetic; and then by placing it again at right angles, it becomes polar, from the direction of the current in the wire, as I have stated. Now that you may form some notion of what happens in the conducting wire, let us suppose this brass cylinder to represent the wire carrying electricity from one to another. Here is a representation of the magnetic current made upon the cylinder by a coloured line, passing along the cylinder at right angles with the electric current, and the consequence is, that you must have a spiral current passing around the central column, representing the wire; you have a north direction of the magnetic current on the one side of the cylinder, and a south direction on the other; and hence the oscillation in the magnetic experiment. Here is a quantity of iron filings upon this disc, and you see that the filings are all magnetic, from my having touched them with the wire; if I pass a steel bar through these filings, and then put it into a cylinder, around which an iron wire is twisted, connected with the two poles of the battery, and hold the cylinder perpendicular, the bar will still be retained there by magnetism, although, like Mahomet's coffin, it be suspended between heaven and earth; it will remain there as long as the current of magnetism is kept up between the extremities of the cylinder, and as soon as that communication is broken, the effect ceases. When the electrical current, conveyed by a wire of this kind, and the magnetical current, are carefully put into action, it has been remarked, that the pole of the magnet has a tendency to revolve around the electrical wire, and that if we could give to this full freedom of motion, we should see manifested the magnetical current, and the wire of the negative pole following it in its circumvolution. For the illustration of this fact, we are indebted to Mr. Faraday, whose apparatus you see here, which shows the fact in a very beautiful way. A great variety of apparatus has been made upon this principle, but I think with-

out any great improvement upon this. By using a spiral wire, and by placing a magnet within it, as you see here, we have a most delicate means of ascertaining the excitation or existence of very minute currents of electricity; for instance, if you make a communication between these two extremities, in a single pair of plates, and bring a magnet near the conducting wire, you will have a sufficient magnetic current established to cause the magnetic needle to turn either to the right or left, according to the direction of the current. We have also numerous instances of electric excitation occurring in the contact of metals, especially at different temperatures; and we have an opportunity of showing this excitation, by the deviation of the magnet from the magnetic meridian, and such phenomena have been called thermolectrical, so that we have an opportunity of showing feeble states of electricity by this means.

I have anticipated a good deal of what I intended to say on the subject of *natural electricity*, and therefore it is not necessary to detain you long, although it is a subject of considerable interest. Since, then, so many sources of electricity exist, being produced, as I before mentioned, by the change in the form of bodies, by evaporation, and so forth, it is pretty obvious that electricity must be continually active in nature. Its effects are exhibited on a magnificent scale in the thunder storm, which results from its accumulation in the clouds, as was first pointed out by Dr. Franklin. He ascertained the real nature of the thunder storm, by sending a kite up into the cloud, and charging some Leyden jars with the electricity transmitted from the cloud by the line of the kite. He also suggested the propriety of using *points* on the tops of houses, for the purpose of receiving the electricity from the cloud by degrees, and, in fact, he showed that if a ball were appended to it, the whole cloud would explode. There is a curious circumstance in connexion with this, which shows the obstinacy of political prejudice, and it was deemed right that *balls* should be used in this country on the tops of the conductors, because Dr. Franklin was an American. I only remember to have seen one of these actually mounted,—it was on the Calton Hill at Edinburgh, and whether it is there now or not, I do not know; but it was a very absurd thing. Now the conductors affixed to houses should always be pointed, and the point should be kept in a state of cleanliness, and the conductors should terminate in a moist stratum of earth, or in London it might safely be conveyed into the common sewer. It has been objected to the use of pointed conductors, that we invite the lightning to the point; and that is true to a certain extent, and in gunpowder mills, the conductor should be placed at some distance from the building. The conducting rod should be of copper or iron, and from half to three-fourths of an inch in diameter, so as not to be readily forced. Its upper end should be elevated about three or four feet above the highest part of the building, and all the metallic parts of the roof should be connected with the rod, which should be continuous throughout. As regards the question of what is the safest situation in a thunder storm, we should be pretty safe in the middle of a large room in bed; we should be pretty safe among the feathers, which are bad conductors; but as the bell-wires will conduct the electricity into the room, the bed should be removed from them. It would be well to stand at a distance from the chimney on a woollen rug, which is a non-conductor. When out of doors, I scarcely need to say, that you should never stand under a tree; the tree being moist, the electric fluid generally passes down between the bark and the substance of the tree, splitting it in all directions, and the lightning will pass to the best conductor near it; if any unfortunate animal should happen to be under the tree, it will be killed. The safest plan is to go toward the middle of the field, at a distance from any tree, and to stretch yourself out upon the ground, although that is not a very pleasant situation, especially in hard rain. During a thunder-storm, the earth is in a state of electricity, as well as the clouds, and the light and heat which are produced at the explosion, indicate the annihilation of the two electricities. Sometimes the discharge is only from cloud to cloud, sometimes from the earth to the clouds, and sometimes from the clouds to the earth, as one or other may be in the positive or negative state. The clouds are usually more or less electrical when the vapour, floating about in the atmosphere, is condensed, and the earth being brought into an opposite state of electricity by induction, a discharge takes place, when the clouds approach within a certain distance, and sometimes the electric cloud perches upon a hill, and then discharges itself. The electricity passes through the clouds in a zig zag direction, and the undulation of the air which it produces, is the cause of the noise which we hear called thunder, which is more or less intense, and of longer or shorter duration, according to the quantity of air acted upon, and the distance of the place where the report is heard from the point of discharge. If the danger be great, we have seldom any opportunity to count the time which elapses between the appearance of the lightning and the report: electrical effects take place at no sensible time; it has been found, that a discharge through a

circuit of four miles is instantaneous, whilst sound moves at the rate of about twelve miles in a minute. So that, supposing the lightning to pass through a space of some miles, the explosion will be first heard from the point of the air agitated nearest to the spectator; it will gradually come from the more remote parts of the course of the electricity, and, last of all, will be heard from the very extremity; and the different degrees of the agitation of the air, and the difference of the distance, will account for the different intensities of the sound, and its apparent reverberations and changes. If you can count from two to three seconds between the appearance of the lightning and the sound, there is seldom much danger; and when the interval is a quarter of a minute, you are secure. The *water spout* is also an electrical phenomenon; the cloud and sea become attracted toward each other; the attraction of the lower part of the cloud to the surface of the water may be the immediate cause of this extraordinary phenomenon, especially if it should occur in the neighbourhood of submarine volcanoes. (A good painting of a water spout was shown to the class.) It is a curious fact that, although the phenomena exhibited by the *aurora borealis* appear to be electrical, the light very much resembling that of electricity, we have not as yet had any proof of the electrical condition of the atmosphere. Still, however, I think there can be no doubt that the phenomenon is electrical, and is probably produced by the electric light traversing rarefied air.

We have electrical powers exhibited by some animals, as by the *gymnotus electricus*, and the *torpedo*; they are capable of giving very violent shocks, and the apparatus by which this power is generated, is an immense nervous mass situated on the sides of the body, arranged in a number of plates somewhat resembling the Voltaic pile. Now without any discussion as to the cause of electricity in these animals, it appears to be connected with the nervous system, and you may remark the very great supply of nerves sent to these parts, especially in the torpedo or electric ray, in which fish they are twelve times, and in the gymnotus, or electric eel, eight times as large as the nerves which supply any other proportionate part of the body. The animal suffers very much from the use of the organ, and it dies if it be too frequently employed. With regard to the production of electricity in animals, some physiologists have considered, that many of the common functions of animals are connected with electrical actions, and some have supposed that all the secretions are under direct electrical influence, and that, accordingly, some of the secretions are alkaline, others acid. Now all that we can say is, that electricity may be active in some of these cases, but we have not the slightest proof that it is.

As to the *cause* of electricity, we know nothing. I stated, at the outset of the lectures, that it might be explained by admitting the existence of one fluid contained in all matter, and exhibiting itself by the appearances which have been described, whenever its equilibrium is disturbed. Others venting negative and positive electricity when deficient and when redundant. Others have endeavoured to explain it, by supposing the existence of two fluids, and some admit no fluids at all. Some have considered the effects to depend on peculiar exertions of the attractive powers of matter, and have regarded the existence of any distinct fluid unnecessary to the explanation of the phenomena of electricity. This hypothesis, however, is too coarse to be admitted. It has been stated, that when a flame is placed between the two poles of the battery, it will take a direction from the positive to the negative pole, and it has been considered as demonstrating the existence of a current passing in that direction. It is true that common flame will go to the negative pole; but if you take phosphorus, or any acid flame, it will be drawn toward the positive pole. Upon the whole, then, we are in doubt respecting the cause of electricity, and we must be content to remain so, until some new light shall break in upon our investigations.

In the next Lecture, we shall examine the phenomena of radiant or imponderable matter.

FOREIGN DEPARTMENT.

ANATOMICAL AND PHYSIOLOGICAL REMARKS ON THE MEDULLA OBLONGATA.

BY DR. MEYRANX.*

It is known that the medulla oblongata is that part which extends from the commencement of the spinal marrow to the corpus striatum. About the middle of its extent, it is surrounded by a circle formed by the cerebellum superiorly, and by the pons Varolii inferiorly. The medulla oblongata has been submitted to experiments in the different parts of this space, and different functions have been ascertained to belong to its successive portions. The protuberance, as well as the cerebellum, which

* Annales des Sciences Naturelles.—Aôut, 1827.

forms the circle of which we have just spoken, divided by an imaginary line which would fall vertically from the centre of the vermiform process to the centre of the protuberance, give two lateral segments, in each of which there exists, according to M. Magendie, a force which impels the animal to turn on the opposite side. These two forces, reciprocally balancing each other, constitute the equilibrium preserved in the standing position. By wounding a hemisphere of the cerebellum, or a half of the protuberance, the equilibrium is destroyed; the animal rolls over on its side, until some mechanical obstacle stops it; this rolling commences on the side injured. To this very singular phenomenon is added, a particular position of the globes of the eyes; that on the injured side being turned downwards and inwards, and that on the other side upwards and backwards. These symptoms are the more marked, as the injury approaches the nearer to the protuberance.

M. Magendie thinks, that below the cerebellum there is another double force, which exists throughout the lateral half of the medulla oblongata; if it be cut transversely, on a level with the fourth ventricle, the animal turns on its feet, and always on the side opposite the injury, with as much precision as a horse goes through the exercises of the riding school.

The same physiologist did not perceive any effects to result from wounding the anterior pyramids, until one of them was cut, together with the entire moiety of the medulla oblongata to which it belongs, and until the medulla oblongata had been divided by a longitudinal section on the median line. After these two operations, he observed that the voluntary motions only were paralysed; this paralysis affected the opposite side of the body.

M. Magendie has never observed any consequence to result from wounding separately one of the posterior or one of the anterior pyramids. We are now about to give a short account of some disorganisations produced in the same parts, accompanied with very marked appearances, and somewhat different from those hitherto observed.

But before detailing these experiments, we think it necessary to remark the number and disposition of the bundles of the medulla oblongata; the situation of the anterior and posterior pyramids, or the corpora restiformia, is known. Between these two last, two longitudinal columns, almost parallel, are observed on the floor of the fourth ventricle, but which do not separate from each other at an angle, like the corpora restiformia; they are covered, especially in man, with a grey layer, below which is situated a white matter, forming a mass of considerable thickness, if that of the anterior pyramids be comprehended. This grey layer, and the subjacent white matter, are generally taken for the posterior surface of the anterior pyramids, but it is an error; it is, in fact, a third bundle, which is perfectly distinct from the two others, and which is called the bundle of the infundibulum, because in the four classes of vertebrated animals, it arises from the corpora albicantia, which always occupy the sides of the infundibulum. It is the junction of these two bundles, that forms that triangular space which is situated between the crura cerebri; this space is bounded anteriorly by the infundibulum, and posteriorly by the tuber annulare.—though superiorly, on one side of the brain, this triangular layer is continuous with the tuber annulare, then with the anterior pillar of the cerebral triangle; and posteriorly, the substance of this same triangular layer is prolonged into the surface of the fourth ventricle; covered by the point of the *calamus scriptorius*, it re-appears below those limits, at the posterior lateral parts of the spinal marrow. We think that this is the bundle mentioned by Mr. C. Bell, to which he refers the nerves of the respiratory system. It cannot be followed lower down in the substance of the spinal marrow, such is the intricacy of this part, or at least this investigation can only be made in the fœtus. The anatomical part which we have just specified, is not very easily discriminated in the adult; but it is made very evident by a vertical section along the whole length of the spinal marrow of a new-born child, but still more so at the age of three months and a half. The reason of this is, that, at this period, the nuclei of the three bundles in question are white, and all the other parts are grey.

It is on the bundle of the infundibulum that a great part of the glosso-pharyngeal and par vagum arise; lastly, the sympathetic derives a very distinct root from it; it is that which the lateral bundles of the valvula Vieussenii furnish. These last bundles are a part, or continuation, of the posterior chords of the medulla. These details are necessary to understand the motion of the eyes, to which we shall allude in the following experiments. It is known that Mr. C. Bell has proved, that the two obliqui, to which the fourth and a filament of the third pair go, fulfil the functions in the involuntary motions of the eye, functions related to those of respiration.

In our first experiment, we laid bare the brain of a young rabbit, and raised the greater part of the left hemisphere, without any other symptoms except blindness of the right eye.

At the end of half an hour we determined

to wound the thalami nervorum opticorum, which was concealed till now by the posterior part of the hemisphere. The scalpel having been plunged in its direction, the animal carried its head strongly backwards, then brought it to the position just described, but the equilibrium was lost; the eye on the injured side was fixed downwards and inwards, the eye on the opposite side was fixed in an opposite direction; the whole of the cervical region was flexed obliquely on the side injured; lastly, it rolled over, commencing on the injured side, and continued turning until stopped by some mechanical obstacle. The rest which accompanied this motion, always took place on the healthy side. We recognised the symptoms described by M. Magendie, and we thought we had wounded the left side of the protuberance.

The post-mortem examination enabled us to perceive that we had reached, in fact, the thalami nervorum opticorum, as we intended; but not having exactly calculated for the inclination from before backwards, at which the brain rests on the base of the cranium, the point of the scalpel had traversed the upper half of the corpora quadrigemina, and had penetrated into the substance of the left half of the protuberance; but the bundle of the infundibulum had been traversed. It will be seen that the results are the same, and that the experiment only differs in our having wounded the protuberance at the superior surface, by cutting across other parts, whilst M. Magendie wounded it at the inferior surface. The wounding separately of the thalamus nervi optici, as well as that of the corpora quadrigemina, was not followed by these symptoms.

It occurred to us, on account of the origins of the sympathetic nerve, and the direction of the bundle of the infundibulum, to make an experiment separately on the parts which we had traversed before arriving at the protuberance; we wished also to inflict the same injury on the inferior half of the arch, that is to say, on the cerebellum, as we had on the protuberance.

We began by the superior part; with this view, we raised very nearly a line of the left parietal bone, close to its posterior edge, and also close to the suture, which joins it to the occipital bone. Now the anterior extremity of this last bone is precisely on the line which separates the cerebellum from the cerebrum; we pushed through this small opening the fine blade of a pen-knife through the whole depth of the cerebellum; we took care to incline the instrument from before backwards and downwards, to avoid the corpora quadrigemina, which were not touched; then raising and withdrawing the instrument at the same time, the concave edge and the point of the blade would cut the whole substance of the cerebellum, without having penetrated the fourth ventricle: the division was effected precisely on the sulcus which separates the processus vermiformis from the middle lobe from the whole external part of the cerebellum.

The symptoms which followed the section of the protuberance, were slightly marked. The animal preserved the standing position in a less firm manner, and almost crawling, he always preferred the injured side, and if he did not roll over, at least when he fell, it was always on that side; but his eyes preserved their natural position.

The blade of a straight and pretty large scalpel being pushed by the same foramen in a direction and at an angle perfectly the same, till the base of the cranium stopped the point, the animal carried its head so far back, that the occiput rested on the middle dorsal vertebræ. It kept this position with a tetanic rigidity; the position of the eyes, which had not been altered till now, changed; they were both drawn upwards and backwards; the inferior extremities were extended and rigid; they were deprived of voluntary motion, and even to a certain degree of sensibility, for they only moved when they were pricked, and even that only once when this kind of excitement had been used three or four times; when they were flexed, they quickly returned to extension.

The superior extremities presented a motion not before observed; it was not that of progression, for it was alternate, very quick, and not interrupted. Now, the rabbit limped rather than walked; we want words to express so uncommon a sight; it could best be compared to the alternate motions of their paws, which cats make in purring when they are caressed, and which is vulgarly called *making a loaf*, because it resembles the kneading of the baker. This state lasted two hours, without interruption; it gradually ceased with the strength of the animal; we then opened it.

The whole floor of the fourth ventricle was entirely disorganised, which comprehends the two bundles of the infundibulum to an extent of ten lines across the *tubercule* of the *nates*. The two anterior pyramids were also affected, though not so strongly, for the point of the scalpel was passed out between them in the middle of the sulcus which separates them, about three lines lower down than the tuber annulare, immediately below the corpus trapezoides, and between the nerves of the sixth pair. These experiments were repeated many times following with the same precision, which is not difficult, when the operator is acquainted with the anatomy of the young rabbit, and when he uses the same instruments, taking care to operate on animals of the

same age and size. This we effect, by procuring a whole litter.

We obtained the above mentioned symptoms four times, with this single difference, that those of the anterior limbs, that is to say, the rigidity, were transported to the inferior limbs, and *vice versa*, the extension with rigidity and insensibility being transported to the anterior limbs. Both the eyes remained, moreover, in their natural position; in the former injury of the fourth ventricle, they were simultaneously drawn upwards and backwards; there was only this difference in the injury, that, in the second case, the blade of the scalpel had traversed the medulla on a level with the *calamus scriptorius*, that is to say, a little lower down.

From the preceding facts, we may conlude,

1st. That when the fourth ventricle is wounded to a great extent,—that is to say, when a bundle of the infundibulum and half of the protuberance are wounded, we have the loss of the upright position, and the lateral rotation of the body; and, morever, the adverse position of the two globes of the eyes.

2d. When the cerebellum only is divided throughout its whole substance, but without touching the fourth ventricle, we observe only that the symptoms decrease in the injury of the protuberance; viz. direction of the animal on the side injured, progression slow and as if crawling, uncertainty and difficulty of preserving the equilibrium, falling and half supination on that side; but, moreover, natural position of the eyes.

3. If it be disorganised immediately beneath the protuberance and the fourth ventricle, that is to say, the two bundles of the infundibulum, and a little of the two anterior pyramids (the corpora restiformia always remaining perfectly untouched), we obtain symptoms as before described; incomplete paralysis, with rigidity and extension of the inferior limbs; curious motion of the superior extremities.

4. Lastly, an injury similar to the last, performed on a level with the *calamus scriptorius*, has no influence on the motion of the eyes, although it produces symptoms of the superior and inferior extremities, but without transposition of those observed at the inferior extremities, on the superior and *vice versâ*.

If we duly appreciate the facts above stated, it will be evident that we shall be justified in concluding, that the medulla oblongata is not one composed of two halves only, but that each of the two halves which constitute its body, is itself composed of three columns or bundles, the properties of which are different.

The equilibrium and parallelism of the eyes depend on the state of the middle bundle, or of the infundibulum; when one of these bundles is wounded, the two globes of the eyes are drawn unequally, and in a different direction. When these two bundles are disorganised on the level of the fourth ventricle, the eyes are deranged in a uniform manner. Lastly, when the fourth ventricle is traversed at its most inferior part, or beneath the *calamus scriptorius* (it is the spot where the two bundles of the infundibulum leave this ventricle, to occupy the external lateral parts of the medulla), then, the injury only affecting the anterior pyramids, the eyes do not change their position. This last circumstance shows, that the anterior pyramids have nothing to do with the effects to which the above mentioned experiments have given rise to relative to the eyes. It is, moreover, very difficult to wound these pyramids by their anterior surface; we can only effect it by introducing an instrument curved at its extremity, into the space which separates the atlas from the occiput. Neither the posterior pyramids nor the cerebellum were concerned in the experiments. It was the bundle of the infundibulum, the injury of which produced the phenomena which we have now detailed. It is from this bundle that the sympathetic nerve principally arises. Now, according to Mr. Charles Bell, the eyes are put in the position before described by means of the obliqui, one of which receives the fourth pair.

A FEW OBSERVATIONS ON THE DISSECTING AND PREPARING OF THE BODIES OF ANIMALS.

Though the art of anatomising the bodies of animals is essentially the same as that practised upon the body of man, and though want of space precludes me from treating the subject minutely, I conceive that a few remarks may not be altogether unacceptable to those who feel desirous of pursuing such studies for themselves.

The first thing that I have to observe is, that all dissections of small soft objects, e. g. worms, zoophytes, insects, molluscs, and embryos, where it is desirable to obtain even tolerably accurate results, should be performed *under water*, by which the parts are kept floating and separated from each other, and, consequently, present themselves more distinctly. A very simple contrivance for investigations of this kind, may be prepared in the following manner: a mass of tough wax (not too soft) is to be laid upon one or more porcelain saucers or capsules of different sizes, which are then to be put in a warm place until the wax melts, so as to cover the surface evenly to

the depth of one-half or one-third of an inch. If the object to be examined be laid upon this surface, it may be fixed by needles in any position that is wished, and when covered with clear water, developed and dissected by means of suitable instruments. Of them, the best are very delicate forceps, pointed, well made, sharp cutting scissars, and small knives like cataract needles, some round, others with cutting edges, and fixed in slender wooden handles. For separating parts, I have also employed small horn probes, and fine brushes; whilst, for examining them, a good magnifying glass is frequently indispensable. If it is wished to preserve a preparation thus made, wax coloured at pleasure as for the purpose of injections, is to be formed into little tablets about one-fourth of an inch thick; one of these is then to be placed upon the saucer or capsule containing the preparation; the latter may then be transferred to it, arranged suitably upon it, fixed there by means of short needles, and both together then placed in alcohol. Nor must I forget to mention, that the examination of very delicate organisations may frequently be conducted with greater facility and accuracy, if the object be previously allowed to remain some time in spirit, and thereby to become harder and contracted. This applies particularly to the dissection of nervous organs, and to the examination of very small embryos, of mollusca, and worms.

There are various modes of destroying worms, insects, mollusca, &c., for the purpose of dissecting, without injuring their organisation: mollusca and snails, for instance, as Swammerdam has remarked, are to be allowed to die in water, because by that means their body swells, and all the parts become more distinctly visible; they may afterwards be kept in spirit (though not too long) for dissection. Worms, the larger zoophytes, (for the smaller must be examined whilst alive,) caterpillars, &c., and also the smaller amphibia and fishes, are best destroyed by means of spirit. Insects, on the contrary, by being dipped rapidly in boiling water, or in oil of turpentine.

As regards the dissection of larger animals, we may here use with advantage knives of a large size, and instead of forceps, suitable hooks with handles.

In animals of a considerable size, we can generally make artificial skeletons only, after the bones have been sufficiently cleaned by boiling or maceration. In smaller animals, on the contrary, such as birds, amphibia, and fishes, of which last it is very difficult to make good skeletons; the object will be best accomplished by at once making the bones as clean as possible, without injuring the capsular ligaments, soaking the preparation in water that is incessantly changed, and, lastly, bleaching it for some time in the sun.

Lastly, we may mention injections as affording a very essential assistance in zootomical investigations for physiological purposes; in small animals, and in the more minute parts, these must consist of compositions with wax, very fluid and coloured; but above all, of mercury. The latter, however, is not suitable for very soft bodies, e. g. medusæ, &c., in which cases we may employ injections of coloured milk and similar substances.—*Gore's Translation of Carus's Comparative Anatomy.*

DILATATION OF THE PUPIL.

Experiments on living dogs and rabbits, show that the pupil, even when dilated by belladonna, contracts briskly when the external surface of the iris is stimulated by a needle passed through the cornea, whilst, on the contrary, the contraction is less rapid if the needle passed through the iris and irritated its internal surface; nay, a very able ophthalmologist assured me, that when, during an operation of keratonyxis, the iris was perforated accidentally, and without any further mischief, it remained motionless; and, on the contrary, that the pupil invariably contracted when the anterior surface of the iris was irritated, in opening the anterior chamber during the operation of extraction.—*Ibid.*

SKETCHES

OF THE

SURGICAL PROFESSION IN IRELAND.

No. XXII.

DR. JACOB'S INTRODUCTORY LECTURE.

The revolution in the arrangements of our college, which was detailed at some length in a late communication, terminated yesterday in an exhibition, attended by circumstances which demand a specific notice from their peculiarity, and I might add, their importance, at least in this remote part of the empire, where trivial incidents sometimes assume the dignity of events. Divested, however, of the adventitious amplification with which our provinciality naturally invests ordinary occurrences, the occasion was one of intrinsic interest in the records of our scientific movements; one in which

our national feelings were deeply embarked, and rendered still more momentous by the shipwreck of these anticipations. The sound of the hammer for more than twelve months, had launched us in an agreeable voyage of hope, while the appointment of several approved pilots at the helm, promised a favourable conclusion to our speculations. In fact, after the toil and expense laid out on the decoration of the college, the addition made to the numerical strength of its functionaries, with various other supplementary provocations to excitement, it was not to be wondered at, that the hour, when matter and mind were to reflect mutual splendour on each other, and our appetite for information on certain topics was to be allayed, should have been awaited with an intensity of anxiety, for which my experience furnishes no parallel. In short, it was to be an era in the history of the establishment; or to borrow a technicality from the periodical craft, (no offence, I hope,) the institution was to commence a "new series," under more propitious auspices. Great changes had certainly been made in its different departments; others, equally considerable, were supposed to have been in contemplation; divided in its councils on questions not only involving its own interest, but even that of our metropolis, to which, "fallen! fallen! from its high estate," the casual alms of science are now an object of some consequence; it was expected, that out of these circumstances some superior spirit would arise, and comprehending the exigences of the crisis, would satisfy public curiosity, by an ample explanation of the past; and while sketching the intentions of futurity, would give an earnest of their wisdom in the execution of the draft. Though not an admirer of the policies adopted, in many instances, by the active agents of the college, nor convinced of their capabilities to give weight to prudent measures, by the authority of literary merit, I confess I permitted the repose of my incredulity to be broken by the popular current, and believed that for once, the obvious indications of the case would force them into the right path of conduct; and that the very pressure of expectation would have extracted from sterility itself, something worthy of the temper of the times.

Willing to be deceived, I resigned myself, like many others, to the pleasing reveries of hope, and in my way to the place of their fulfilment, had the singular merit of sketching in my mind, insensible to the commotions of Grafton Street, and the seductions of shop-windows, the "ideal" of the discourse, and of the individual by whom it should be delivered. He should, I imagined, be at least six feet high, imperial measure, with a genuine Milesian face, the "front of Jove himself," an eye of lightning, a powerful arm, voice more loud than sweet, a rich fancy, strong intellect, sound judgment, genius to conceive, taste to execute, fortitude to deliver what a heart in the "right place" suggested, with his mind plentifully stored with classical, miscellaneous, and medical information; in short, a well-built, talented, honest, fearless Irishman, who had risen to eminence by force of character alone, having a consummate contempt for all trickery and corruption; and with a degree of liberality quite uncommon to persons of my creed in Ireland, I conceived he would have been improved by a slight twang of the "brogue," and by not eating meat on Fridays—the nation, of which I thought he should have been a perfect specimen, being, I fear, in spite of the "new reformation," irrevocably addicted to ichthyophagyon two days of the week. The discourse should, in all respects, correspond with the characters just described; be bold in conception, and fearless in execution; applaud where approbation was due, and condemn, without mercy, where vices provoked reproof; expose defects, reckless of all personal considerations; and propose remedies, regardless of the profits or losses of individuals; convince the wavering, awe the corrupt, and elevate the minds of the young to a just perception of the extent and respectability of the profession in which they were about to embark, by the liberality of its views, and the depth of its scientific intimations. The sounds of approbation with with such a manifesto would have been received, began to swell on my ear; I saw the eyes of the multitude kindle into enthusiasm, as their hearts expanded to the influence of truth; I traced their impressions communicating, as they spread wider and wider from their source, a healthy agitation to the public mind, like the divergent undulations of a lake when disturbed at its centre; while fancy, in another corner of the picture, presented Mr. Colles writhing under the infliction of the orator; Sir Peter Courtenay holding a bottle of ammonia to Mr. Harrison's nose; Porter biting the dust in actual convulsions; Palmer and Auchinleck running down York Street as if the "tip-staff" was at their back; and the rest of the crew hiding "their diminished heads" under the benches, with their heels up, and calling on the mountains to cover them, as if the blast of the last trumpet had thundered on their ears. Lawrence—Armstrong, hurling one of their annual missiles, plumed with wit and pointed with justice, which bear death yearly among the ranks of corruption, involuntarily mingled with my associations; and even our own Carmichael, wielding with his gigantic arm the truncheon of reform, and pros-

trating its opponents at every blow, started up on the canvass to supply my imaginary desideratum. Absorbed in these perhaps malicious abstractions, I passed through Grafton Street, unconscious, as if it had been another Palmyra, until striking my shoulder against the college, I awoke from my dream—cast an eye on my watch—it was nearly ten o'clock. I looked round, and taking in Mr. Jacob in the distance, the delusion vanished, and I entered in a state of despondent collapse, equal to my late excitement, to work out a seat in the best manner I could.

A long attendance at professional meetings of every description, enables me to say, that I never witnessed any thing of the kind equal to the vast concourse of spectators by which I was now surrounded. Long before the appointed hour, a theatre capable of containing a large assembly originally, was found, though lately enlarged nearly to twice its former dimensions, quite inadequate to the accommodation of the crowds which sought admission. From the top to the bottom of this spacious receptacle was filled even to suffocation; and as I turned up to inspect the congregation of Scotch pebbles, English spar, and Irish diamonds that glittered on all sides, I instinctively recoiled from the contemplation of the moving mass that heaved in the tortures of pressure and perspiration above my head. The contagion of curiosity seemed to have transcended the pale of the medical world, for I observed that the condensation of the multitude had been completed by a liberal influx of the representatives of every other profession and grade of society. The physical sensations excited by such a concentration of humanity, would probably have propagated themselves to the minds of the same number of persons of any country under similar circumstances; but amongst Irishmen, such a provocation naturally elicited more than an ordinary display of their proverbial restlessness. For some time the stimulus to inquietude expended itself in critical anticipations of the person and performance of the expected orator, and in occasional ejaculations of corporeal suffering. These complaints and commentaries sometimes assumed rather a grotesque character from their contrasted combination, and to such questions, answers, and remarks as these I could not be inattentive:—"Is Erinensis here to day?"—"Oh! my leg; to be sure he is."—"Lord have mercy on poor Jacob! Up with the windows."—"We'll have it all in THE LANCET. Oh! my country, all I suffer for your sake."—"Do ye think he'll play the monkey to-day as well as at his first appearance in Park Street! D—n all lectures, past, present, and to come. What brought me here!"—"Amen. Tom, will you send an os frontis whizzing right through the glazier, and let in a few zephyrs from the Green? Here he comes, the great little man in the spectacles."—"No, faith, but his master; and now for a regular round to knock the dust out of your 'kids.'" The dialogue ended, the door opened, and the hero of the Richmond entered. A momentary pause of silent respect, like the calm preceding a storm, ensued, in which the energies of the spectators seemed to have been collecting only to burst on him with increased violence in the tornado of applause, amidst which he moved to his seat. However our studious visiters might look upon such tumultuous eruptions of feeling, I could scarcely regret that they were so ardently and loudly lavished on one by whom they were so well deserved. Fortunately for the preservation of the temper of the audience, their growing impatience found an outlet in many such boisterous explosions, as some favourite examiner, or member, took his seat below in the space allotted for them apart from the students. In a moment, however, of partial repose, the object for whom all eyes had been so long and anxiously looking out, rushed in from a side door, followed by a confusion of sounds, in which the most experienced ear in popular vociferation might be at some loss to determine whether ridicule or applause predominated. Accidentally recognising the table, in the rapidity of his flight, he as precipitately drew himself up to the highest pitch of his altitude, and, pausing for a moment, stared through the spectacles at the living mass that towered above him, as if confounded by its magnitude and the deafening peals by which he was assailed. Having assured himself that he had taken a right position, and waiting with the occiput almost in apposition with the dorsal vertebræ, until the alarming tumult had subsided, he squared his elbows, and, turning to Mr. Cusack, addressed him as president, by stating, that he stood there, by order of the College, to make some remarks preliminary to the course of lectures, and, in an under-tone of submissive humility, assured the honourable members, that they were not there to receive instruction, but to preside over the administration to others. By what agency Mr. Jacob performed the feat of courtesy displayed in his obeisance, I have been at a loss to determine, and equally so how Mr. Cusack should have worn his hat on, unless Sir Peter Courtenay had assisted the former by some astute contrivance in the floor, and that Sir William Bithar, Ulster King at Arms," has made out the family connexion between the latter and the noble house of De Courcy. Its deep shadow, however, I thought improved rather than in-

jured the expressive inanity of the president's visage, which seemed as intensely vacant as if he had been meditating a trip to Gretna with the goddess of the Dunciad, or ruminating on the gloomy prospects of Park Street, brought to his memory so forcibly by the presence of his quondam associate, Mr. Jacob, who, having thus laid the first-fruit offering of his gratitude with all due servility at the feet of his electors, proceeded to address the audience indiscriminately.

The subjects of Mr. Jacob's lecture were extremely heterogeneous, their diversity disdaining the dull toil of judicious selection, and snapping the thread of the discourse by perpetual transition. I must be, therefore, as abrupt as my original, in noticing his production, which might be read from the middle, the end, or any other given point, without injury to its arrangement or intelligibility. The late alterations in the College, and the local advantages of the Irish school, were themes of too prominent a character to have escaped the attention of a less accurate observer than Mr. Jacob. Occupying their proper place, and represented in suitable colours, they might have given force to the effect which he intended to produce; but when Mr. Jacob determined on asserting that the College was at length a perfect institution, and that the school of Dublin was now the first in the world, I fear he erred materially in his estimate of the powers necessary for the discussion of such important subjects. Dublin is certainly not the best school in the world, but it is quite beyond Mr. Jacob's qualifications to do justice to its merits. The fact which he selected to make good this point, that there are now in our city accredited agents from London and Edinburgh for the purpose of pickling and casking dead bodies, was certainly a good one, but in his hands liable to many objections. The fertility of Bully's Acre, which has shed such a halo of glory around the school of Dublin, is purely accidental, and it consequently required a degree of logical tact in the management of the argument, by no means possessed by Mr. Jacob, to found a claim to superiority [illegible] a mere casualty; merit, in ethical reasoning, being always associated with moral [illegible]rtion. I grant, of course, the vast import[illegible]ance of the silent instruction of the grave, are [illegible] at the dead professors of Bully's Acre our l[illegible]nitely more eloquent than many of that h[illegible] ones; but did Mr. Jacob imagine [illegible]trious d[illegible]s capable of eulogising the illus[illegible]row beds [illegible]nct that slumber in their "nar[illegible] Boirhome [illegible]round the monument of Brian [illegible] twenty-seco[illegible]. I have myself got as far as the [illegible] book of an epic poem on the Golgotha of [illegible] Hospital fields, with Peter Gerahty, the prince of resurrection, for its hero; but after so many hours expended on the celebration of this theme, and with a thorough knowledge of its magnitude, I should, in a concerted discourse, hesitate to venture on its praise, or to make it the basis of a panegyric on the school of Dublin. The reasons adduced by Mr. Jacob for attempting a defence of our school, were equally unfortunate, and as badly handled; these reasons were, that he was an Irishman, addressing an Irish class, and that a Doctor Somebody, in his enumeration of various cities celebrated for the facilities of professional education which they afforded, omitted all mention of the capital of the West. Now, in the first place, I deny that Mr. Jacob is, in any one essential quality, an Irishman, except his being born in the Queen's County; and if he have any doubts on the matter, I beg of him to read my description of one; then look into his dressing glass, and if he be not convinced of his mistake, I would recommend him to consult his tailor without a moment's delay. Were he really an Irishman, the Dr. Somebody, who had the temerity to insult by his silence the school of Dublin, would be, instead of being as I suppose he is at present, committing legitimate murder among his fellow men, as dead and rotten as any patient he ever poisoned in his life. With respect to the appointment of additional professors, proving the perfection of the College, I do fear that he furnished, on this occasion, the most conclusive evidence of the fallacy of the allegation in his own person and performance. Two sheeps' heads are most unquestionably better than one, the axiom being as true in metaphysics as in the manufacture of broth; but that the concentrated essence of all the heads that were ever exposed for sale in Ballinasloe, would produce any thing like the flavour and excellence of one bowl of turtle soup, any more than that all the inhabitants of Timbuctoo, if made into one man, would be equal to one white, is what I must dispute. That Mr. Macnamara is an invaluable auxiliary in point of longitude is undeniable; of Mr. Harrison's agility no one doubts, having stood the test of experiment; and that Mr. Jacob is willing to exercise whatever faculties he may possess, I do not intend to dispute; yet I should pause ere I asserted in his place, that their united strength, physical and mental, was a proof that the College had at length been perfected. Besides, the assertion was indirectly a bitter sarcasm on Mr. Jacob and his own party, who, to my certain knowledge, have been saying, for many years, that the College required no improvement; indeed I never recollect an introductory lecture in which its infallibility was not maintained, but like all other

infallible bodies, it has changed with the times.

The question of the abolition of apprenticeships, which has been for so long a time a bone of contention among the profession in Dublin, was a topic on which some explanation was required from the representative of the College on the present occasion. So much, however, has been said on this subject, the system of apprenticeship has been so often demonstrated to be one of the imperfections of our perfect College, that I should be tempted to leave it to its fate, but for the novel and ingenious defence made by Mr. Jacob in its support. His arguments will speak for themselves, which are in substance, as well as I can recollect, as follows:—"As masters cannot attend to dressing and minor operations, these duties necessarily devolve on their apprentices; though the complaints of the negligence of masters are sometimes well founded, incalculable advantages are derived to pupils, from the opportunities which they afford for private instruction; if you look to the men who have succeeded in their studies and in life, and trace the causes of their success, you will invariably find these fortunate individuals have served apprenticeships; and, lastly, that an apprenticeship made the student go through a more systematic course of education." If bleeding and bandaging, cupping and cauterizing, were actually to cease with the abolition of apprenticeships, I would reflect seriously before I deprived the afflicted of the assistance of dressers by the adoption of such a measure; but then when one looks to other countries, where these duties are performed without a single indenture, there surely can be no apprehension that ulcers would run wild in Ireland, even though indentures were abolished. The balance struck between the neglect and attention of masters to their pupils, may be a nice point to decide, particularly where such a considerable quantity of the heaviest of all metals is placed in one of the scales; and as to the professional prosperity of apprentices depending on scientific instruction, or the ordinary influence of mere interest, as it is called, Mr. Harrison, I presume, and many others, could decide the point for ever. On the supposition that apprenticeship is the most systematic course of education, it would be unnecessary to dogmatise, there being so many living examples of the system at present in Dublin. Mr. Jacob's arguments and facts were, however, far exceeded by his illustrations, of which, I think, the following is a fair specimen:—"The system of professional education (said he) may be considered as a race course, at the end of which a stone wall of fearful dimensions is erected; the course is intersected with hedges and ditches; many enter on it with enthusiasm, lashing and dashing at every obstacle, but before they go far, find themselves merged in a drain; others wander off the course, never to return: but view the apprentice, he proceeds with an uniform speed and undaunted courage; he flies over every impediment, or should these be insurmountable, he goes round to the gap; nothing diverts him from the course, until at length he reaches the wall, and clears it in good wind, never failing to find the king's plate on the other side." Shouts of laughter of course followed the delivery of this parable, culled from the "Racing Kalender;" and when the noise a little subsided, the Solomon of the "stand-house" thus explained his meaning: "The wall is the examination, and the public are looking from behind it, betting on the winner, and waiting to reward the victorious." The peals of laughter were now renewed with redoubled violence; waves of mirthful fat were seen undulating along Mr. Wilmot's ribs; Mr. Harrison chuckled knowingly at the sad condition of his sporting colleague; and Mr. Colles, whose lips seldom divaricate beyond the legitimate range of a sneer, seemed in some danger of dislocating his jaw from excessive agitation. Had Mr. Crampton cracked off this parallel in the theatre to the sound of a hunting whip, no one would have been surprised, it being quite in character with the nimrod of the county Dublin; but for Mr. Jacob to attempt it, who would as soon bestride a Bengal tiger or a crocodile, as any charger of common spirit, and whom the veriest heart-broken hack on the "rock road" would brush off his back like a gad-fly on a summer's day, was really unaccountable. The novelty of the comparison promises him, at least, the immortality of a cant, into which it has already passed, the wags of the dissecting room asking each other, "Who takes Jacob's stone wall next?" This part of the discourse being obviously intended for Mr. Carmichael, I amused myself in contemplating the visual encounter of the parties, and nothing could be more melancholy than the plight of poor Mr. Jacob, as he cast a side glance at his opponent, whose scornful looks of contempt, mingled with pity and the might of conscious rectitude, seemed to have reduced the speaker to one half his dimensions. He next adverted to the disinterestedness of the College in the proposed admission of members without serving an apprenticeship, and making some distant allusions to a new charter, suddenly restrained himself, as if he had recollected Horace's address to his muse:—

"Quo musa tendis? desine pervicax,
Referre sermones deorum," &c.

or feeling, perhaps, that he had in this re-

spect exceeded the letter of his instructions, left us to conjecture his mysterious misgivings on an obviously uncongenial theme.

About three quarters of an hour were occupied in discussing these important matters; and then proceeding in his peroration, made some remarks on the course of lectures to be delivered, as he observed, by order of the College, on comparative anatomy; descanted on the utility of this branch of science, the necessity of a knowledge of Greek for its attainment; and, as an exemplification of his own proficiency in that language, How, said the little linguist, (who, I suppose, has performed the Herculean task of mastering the gospel of St. John, and a few dialogues of Lucian,) could Cuvier have fallen into the error of including the horse in the genus Pachydermata? for his skin is remarkable for its *smoothness*, not for its *roughness*; as if the qualifying epithet of the generic compound had any thing to do with the defining of smooth or rough surfaces, being interpreted by Schrevelius, I believe, as expressive of thickness. But notwithstanding this profound display of Greek, horse-skin, and comparative anatomy, he assured his junior audience that they could not spend twelve short hours more profitably than in learning this science; a space of time which might be looked on as rather short for attaining a knowledge of so extensive a subject, if the abilities of the teacher were not taken into consideration. I regret I cannot speak even in terms of common respect of this performance or its author, for the ordinary language of critical denunciation would be misapplied in noticing either. Whatever he attempted to praise, was quite beyond the reach of his approbation; his censure merely displayed the strength of its object, and the helpless weakness of the assailant; his criticism, turning back on himself, demonstrated his ignorance; in short, whatever faults could be committed in the conception, execution, and delivery of one discourse, were concentrated in this production, which has excited the indignant contempt of the surgical profession in Dublin.

ERINENSIS.

Dublin, Oct. 30, 1827.

ST. THOMAS'S HOSPITAL.

SERIES OF CASES OF MALIGNANT DISEASE, OCCURRING IN VARIOUS PARTS OF THE BODY.

We use the term malignant here, in its ordinary acceptation; that is, as denoting specific and intractable disease of structure. Malignant diseases in this sense are generally considered as belonging to one of two kinds—cancer, or fungus hæmatodes; and although it must be admitted that these diseases are distinct in their nature, and often exist uncombined, yet in many instances we find them co-existing in the same organ, so that it is frequently impossible to say with certainty, *a priori*, this is fungous disease, or that is cancerous disease.—Again, a morbid alteration of structure takes place, equally intractable, but differing widely in all its other characters from cancer or hæmatodes; but whether this difference is attributable to the peculiarity of texture affected, the disease being identically the same, or whether there are so many distinct and separate diseases, is at present unknown. It is from having remarked for a long period the vague notions which in general prevail, and the difficulties with which students are beset in the consideration of these cases, that we have said thus much prefatory to the narration of several cases which are at present, within the Hospital.

Case 1. *Disease of the face.*—G. D. 50 years of age, admitted into George's Ward, under the care of Mr. Travers.—This patient is disfigured in a most horrible degree by disease of the nose and side of the face. The right ala nisi is divided by ulceration to a considerable extent longitudinally, into two parts, and the portions are separated to the breadth of two fingers. The ulcerated parts are foul and sloughy in appearance, being entirely devoid of granulations: at the under part of the ala nasi is a sore of the same character. From above the ulcerated cleft in the ala nasi is a tumour of the size of a flat, passing upwards as far as the inner canthus of the eye, and extending outwards upon the cheek: the swelling encroaches so far upon the orbit that the eye is closed, and the patient has the power of vision only in a very limited degree. The tumour is exceedingly hard to the touch; the skin is livid, and at the inner angle of the eye there is an ulcerated spot nearly of the size of half a crown: it is superficial, and covered with a yellow tenacious slough. A thin offensive discharge issues from the whole.

The history which the patient gives is, that the disease has existed upwards of three months, and that it commenced with a small ulcerated spot on the ala nasi, which gradually extended: for two months previously there had been slight discharge from the nostril; and we conceive it to be worthy of remark, that about this time he experienced great mental anxiety The disease throughout has been attended with occasional lancinating pain; however, the patient's general health (which has always

been good) has not apparently suffered; there is slight glandular enlargement beneath the lower jaw on each side.

Mr. Travers designates the disease as *carcinomatous*, and as such, incurable; he directed a solution of the nitrate of silver to be applied to the ulcers, and eight drops of the arsenical solution to be taken three times a-day.

An important question suggests itself in the consideration of this disease, namely, with respect to its origin. Did the disease commence in the lining membrane of the nose? Or, did it originate in the skin or follicles, so numerously abundant at this part?

Case 2. *Disease of the hand.*—The patient, a woman 70 years of age, of spare habit, and dark sallow complexion, (or it might almost be said to be of a leaden hue,) admitted into Mary's Ward, under the care of Mr. Travers. This woman presents most singular and extensive disease of the right hand. The hand is bent and hangs down, so that the fingers, which are greatly swollen, nearly approximate to the wrist: the patient is incapable of moving the fingers. The back of the hand, to within a short distance of the wrist-joint, is in a state of ulceration, being covered with hard irregular granulations: the disease extends some way down the back part of, also between the fingers and into the palm of, the hand. The fore-finger is entirely gone, and the remainder are loose at their metacarpal junction. There is a thin and very offensive discharge from the whole surface; the absorbent vessels may be felt, thickened, throughout the fore-arm, and to a considerable extent in the upper arm. At a short distance above the elbow-joint, there is an enlarged absorbent gland, which is very painful on pressure: the axillary glands are slightly enlarged, but not indurated.

The patient gives but a very imperfect account of the origin and progress of the disease; all that we can collect is, that for many years she had a tumour on the outer side of the fore-finger: that at length it enlarged and ultimately attained the size of a walnut, when it was removed by a respectable country surgeon, Mr. Harris, of Croydon: the part did not heal after the operation, and from this point the present disease commenced and extended. About the middle of the fore-arm, on the inner side, is a moveable tubercle, beneath the skin, of about the size of a French bean; it is hard, but tender to the touch. The patient refers to this small tumour, and says that the one removed from the fore-finger was of a similar kind.

Mr. Travers considers this also to be a case of *carcinomatous* disease, and at first proposed the removal of the limb, to which the patient assented; but subsequently, Mr. T. considered that the disease had extended too far to warrant an operation. Although an old woman, and of unhealthy appearance, she does not appear to be suffering from any visceral disease.

Case 3. *Disease of the breast, occurring after the removal of a malignant tumour.*—The patient, a healthy-looking woman, 46 years of age, had the right breast amputated in the month of May last, by Mr. Travers, in this Hospital: at the same time several enlarged glands were removed from the axilla. She remained in the Hospital until the middle of August, when she left, but the wound at that time had not quite healed, and shortly afterwards a fungous growth issued from the part, which continued to increase to the time of her second admission, which was a few weeks ago.

At the period when this report is written, (Nov. 9th,) we find an ulcerated surface as large as the palm of the hand upon the chest, immediately beneath the anterior fold of the axilla. In the central part of the disease is a small deep opening, sloughing in appearance; whilst from this are everted flat and very broad edges, which being turned back, and lying upon the chest, constitute in fact the great mass of disease. An ichorous discharge of an offensive nature issues from the parts; there is no enlargement in the axilla.

The breast which was removed was found to partake of two kinds of disease,—one portion having the characteristics of true cancer, and the other of medullary or fungoid disease. Mr. Travers remarked, that the disease had recurred at the cicatrix, a circumstance which he said was fully in accordance with his previous observations, of the return of such diseases after operations: he had invariably seen them recommence at the cicatrix, and not in the axilla.

The poor woman continues at present in the Hospital; it is almost unnecessary to say, that palliative treatment only has been resorted to.

Case 4. *Disease of the penis.*—This is a case of very long standing: the patient, a chimney sweep, 37 years of age, having been in the Hospital upwards of eighteen months, under the care of Mr. Green. He was admitted with ulceration of a specific kind, at the junction of the scrotum with the penis: it had existed upwards of two years, and made its first appearance as a small wart. There was a superficial sore at the under part of the root of the penis, with hard, irregular, and thickened edges: this disease has gone on gradually pervading the penis, until at length all that remains is the

glans; stuck, as it were, close upon the pubes, in the midst of semi-cartilaginous, irregular portions of skin. The glands in the groin are enlarged generally, on each side, and tender upon pressure.

There are two points in the consideration of this case, which appear to us, worthy of particular observation. First, the peculiar origin of the disease, as regards situation; and, secondly, its progress. Chimney sweepers' cancer, it is said by Pott, *invariably* commences at the lower part of the scrotum: the disease, in the present case, we have already said, began at the under part of the root of the penis. The *progress* of the disease too is very remarkable; its gradual extention along the penis, instead of pervading the scrotum.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

INTERESTING CASE OF SPINA BIFIDA, TREATED ACCORDING TO THE PLAN OF SIR A. COOPER, BY PUNCTURE.

A STRONG child, ten days old, was brought to the Hospital, some time ago, with a large swelling, measuring nearly 14 inches in circumference, situated in the central portion of the sacrum, which was tense, elastic, and semi-transparent, and evidently contained a large quantity of fluid. The integuments forming the parietes of this swelling were remarkably thin, and, at some places, of a deep red colour, and appeared as if about to ulcerate. The central portion of the sacrum was evidently deficient, and the tumour could be traced to extend nearly to the situation of the cauda equina.

From this disease, which was congenital, although at first scarcely of one-third the size which it had since attained, the child seemed to suffer little inconvenience, and although the tumour was of large size, and must have compressed the termination of the spinal marrow, nothing like paralysis of the lower extremities had ever been produced, nor yet had it, on any occasion, given rise to convulsions, which are so frequently the result of this disease. As the integuments of the swelling were inflamed, and as there appeared to be a great likelihood of their ulcerating, and of the contents being consequently discharged by a large opening, which would have probably been speedily followed by death, Mr. Wardrop deemed it advisable to puncture the sac with a small needle, in order to allow of the gradual discharge of the fluid. This operation, which was repeated five times during the succeeding ten days, was attended with no symptom of the least consequence, except, perhaps, a slight degree of febrile excitement, which soon disappeared. On the 11th day, as the fluid was found to be rapidly accumulating, and as no bad consequences had resulted from the previous operations, it was thought proper to introduce a very small trocar, when nearly five ounces of a very dark-coloured and thick fluid were evacuated. It was now found that the parietes of the tumour had undergone a very considerable change, and that they had become very much thickened and corrugated. On the 14th day, the appearances of the tumour were very much improved, its size was evidently much less, and its parietes were gradually becoming of greater thickness. The fluid, which was of a very fœtid nature, and intermixed with numerous small flocculi of lymph, was again evacuated. The health of the child continued unimpaired.

During the succeeding month, the swelling was occasionally, by means of the small trocar, punctured, and its contents, which had now degenerated into a thin serous fluid, drawn off. At the termination of this period, the tumour was reduced to less than one-third of its original size, and what remained attained a very solid consistence. The child seemed to be, otherwise, in perfect health, and had none of those symptoms which usually mark the progress of the disease. A few days, however, subsequently to this period, the little patient was suddenly, and apparently without any cause, seized with convulsions, which speedily terminated his existence.

On dissection, the integuments of the tumour, which was divided into three cavities, were found to have become remarkably thickened and indurated, and, indeed, entirely to have lost the appearance of the cutaneous textures. The cavities were in immediate connexion with the termination of the spinal marrow, but, from the alterations in structure, it was impossible to discover whether or not the meninges of the chord constituted a covering to the tumour. The spinal marrow itself seemed to be sound, and no other disease existed in the body.

The history of this case, the great benefit of the treatment employed in arresting the fatal termination of the disease, and in producing nearly an obliteration of the cavity of the tumour, argue strongly in favour of the treatment by puncture, employed and recommended by Sir Astley Cooper, even although it ultimately proved unavailing.

SECOND CASE OF SPINA BIFIDA, IN A LESS ADVANCED STAGE.

A female child, three months old, was brought to the hospital during the last week, with a considerable sized swelling, of a semi-transparent nature, and containing evidently a fluid resembling high-coloured urine, which was situated in the upper portion of the sacrum, being nearly in the position of the last described tumour. It was covered by a thick, though very dense and strong, membrane. A portion of the sacrum was evidently absorbed, but, from the tense state of the tumour, it was impossible to trace its extent. On placing the child in the recumbent position, the swelling was very considerably diminished in size, while, when held in a vertical position, the tumour became remarkably distended, and thus incontrovertibly proving the connexion of the external disease with the spinal canal. From this disease, which was congenital, although of less magnitude than at present, the child had not suffered in any way whatever; and, indeed, in other respects, seemed to be in perfect health. Nor, when the tumour was compressed, was any symptom produced, which could point out its connexion with the nervous system.

In this case, which, at the present moment seems to be stationary, and is not attended with any symptom demanding active treatment, it has not been deemed expedient to puncture, or to compress the tumour; but should it increase in size, we believe the same plan which had so nearly answered in the last case, will be pursued in this.

CASE ILLUSTRATIVE OF SOME OF THE BAD EFFECTS WHICH OCCASIONALLY FOLLOW THE TREATMENT OF ERYSIPELAS BY INCISION.

At the present moment, when the treatment of erysipelas, owing to the promulgation of Mr. Lawrence's opinions, in his highly practical and able paper, which was lately read to the Medico-Chirurgical Society, is engrossing very general attention, any cases in point, whether for or against the employment of incision, will be perused with peculiar attention.

We narrate the following case, to show some of those bad consequences which occasionally are produced, and which even its most ardent admirers do not pretend to say it is entirely free from, but not with the slightest view of throwing any discredit on a plan of treatment, the good effects of which, we have had numerous opportunities of observing, in preventing or speedily arresting the progress of sloughing and extensive suppuration, in the more severe forms of the phlegmonoid erysipelas.

A frail woman, 68 years of age, and paralytic of the left side of the body, came to the hospital, complaining of a great want of sensibility in the right forearm and hand, which frequently became cold and of a livid colour. She observed, that this numbness did not extend over the whole hand or fingers, but was confined to the radial half of the forearm, and to the thumb, fore, and middle fingers, while the ring and little fingers, and ulnar half of the arm, possessed their natural degree of sensibility. She had complete command over the motions of the shoulder and elbow joints, and indeed had no symptoms of deficient sensibility in the right side of the body, but those already mentioned.

In the anterior part of the forearm, and following the course of the supinator radii longus muscle, there was a cicatrix nearly five inches in length, which was the result of a very deep incision, which had been practised in June last, at a time when her arm was greatly swollen from erysipelatous inflammation. This had exerted, according to her account, a very salutary effect in arresting the progress of the alarming disease, but it had been followed by that loss of sensibility, of which she now complained. The paralysis of the left half of the body was of eight years standing; in other respects she was in tolerable health. In this case it appears probable, that the incision, although attended with instantaneous relief to the erysipelatous inflammation, had yet produced, from the division of the external cutaneous nerves, that loss of sensibility, which was perhaps a worse result than even if the disease had proceeded to extensive suppuration.

CASE OF WOUND OF THE CORNEA, FOLLOWED BY PROLAPSUS OF THE IRIS, AND OPACITY OF THE LENS.

J. H. ætat. 40. In the outer and inferior portion of the cornea, near its junction with the sclerotic coat, there is a lacerated and very extensive semi-circular wound, through which a large portion of the iris is projecting. This obtruding portion is of a brownish colour, and differs widely in appearance from that part of this membrane, which is in its natural position. On the surface of the iris, and within the anterior chamber, there is deposited a large flake of coagulated lymph. The pupil is very irregular, and much pulled downwards towards the wound. There is an evident opacity of the lens, though still in an incipient state. The conjunctiva is a little vascular, though by no means in a very inflamed condition. He complains of a good deal of pain, and more particularly of a distressing sensation, as if some foreign body were lodged on the sur-

face of the eye-ball, as for instance, particles of sand. His vision is very much impaired—he is unable to distinguish any object minutely. He states, that three weeks ago, he received a blow from a splinter of wood, which pierced the cornea. This was rapidly followed by a severe inflammation of the eye-ball, and an intense degree of pain, for which he was bled, leeched, and took purgative medicine. This reduced the acute degree of inflammation, but a chronic state has continued since.

This case is remarkable, in so far as it shows the severe consequences which may ensue from a slight blow on the delicate organ of vision, and the liability of the iris to protrude through a wound situated in the lower portion of the cornea. The prolapsus iridis, acting as a foreign body, produced inflammation of all the tunics of the eye, and gave rise to the deposition of lymph, which was of so remarkable extent, and likewise to the opacity of the lens, an occurrence which is very apt to follow penetrating wounds of the cornea, even where the lens itself is uninjured.

WESTMINSTER MEDICAL SOCIETY,

November 17, 1827.

After the Minutes of the preceding meeting had been read and confirmed,

Dr. Burden called the attention of the Society to the laxity of the discussions, which had prevailed to a great degree during the previous meeting of the present session, and recommended to the members to confine themselves more strictly to the subject at issue.

Mr. Skeene then rose, in the absence of Dr. Barry, who was unavoidably prevented from appearing, to enter on the subject of aneurism in general, which he had almost involuntarily undertaken, at the request of Dr. Barry, being fully aware of his own inability to supply that gentleman's place. He would not discuss the opinions of all who had written on the subject, but would, at once, give what he conceived to be the definition of the disease. Aneurism he considered to be, the communication of an artery with a pouch filled with blood. This might be either simple or diffuse. These two species had many varieties, which arose principally from situation, as femoral, inguinal, &c. Simple aneurism he considered to be merely a dilatation of all the coats of the artery, and where the tumour was circumscribed; whereas diffuse aneurism consisted in a rupture of the coats of the pouch, and the consequent indefinite extension of the disease. Diffuse aneurism was very often the result of simple aneurism. Another variety of diffuse aneurism, was the abrupt communication, by artificial means, of an artery with a vein, constituting varicose aneurism. Having now considered the definition, Mr. Skeene proceeded systematically to the causes of aneurism. The first which he would notice, was pressure of an artery beyond the point where it afterwards became enlarged; of this he would cite as an example,—aneurism of the popliteal artery in coachmen, jockeys, and others, whose limbs were kept flexed, thus allowing the edge of the boot to compress the artery below, while, at the same time, the vessel higher up, from the relaxation of its surrounding muscles, became deprived of support. The aorta also frequently was diseased, from the pressure exerted by the diaphragm, as the vessel passes from the thoracic to the abdominal chambers. The next cause which he considered, was the increased action of the heart, which frequently produces aneurism of the aorta, or even of the arteria innominata, and also of the two arteries coming off from the left side of the aorta. This might be called a constitutional cause. Then another cause of aneurism, was violence applied to an artery, of this he would mention a case. A beautiful girl, (and the disease was to be ascribed to the effects of her beauty,) while at work in the hay-field, was rudely seized by her master, who grasped her arm with great violence, and thus contused it; an aneurism, which speedily developed itself, was the consequence. An artery also might be wounded, and aneurism thus produced. Having now considered the causes, he would *come down* to the effects of the disease. These were, first, atrophy of all the surrounding parts, and this occurred from the compression which the aneurismal tumour exerted; 2dly. The loss of sensation and *volition*; 3dly. The deposit of coagula, and the closure of the artery; and, 4thly, The ulceration of the integuments of the tumour, hæmorrhage, and death. Having now considered the definition, causes, and effects of aneurism, he would proceed to enter on the treatment of it. Mr. Skeene then went over the advantages and disadvantages of the treatment by compression, by bleeding, and the antiphlogistic regimen, and by the ligature of the artery on either side of the tumour. Mr. Skeene had a high opinion of the treatment of Valsalva in cases of simple aneurism, which were more likely to be benefited by it than instances of diffuse aneurism; and for the purposes of compression, Mr. Skeene exhibited a highly ingenious and simple instrument, an invention of his own; and in apologising to the

Society for the length of time he had occupied its attention, he alluded to the statement of a gentleman who had formerly been an apothecary, and was now a physician, (Dr. A. T. Thomson,) who had observed, on the previous evening, "that he had come there for the purpose of hearing something concerning the causes and nature of aneurism," which, by the way, he (Mr. Skeene) thought he should have known before he got his M.D.'s degree. He was aware how imperfectly he had treated the subject, which he had promised to Dr. Barry almost involuntarily to bring forward.

Mr. HUNT confessed that there was something novel to him in the opinions of Mr. Skene concerning aneurism; he was unable to conceive how a loss of *volition* could be considered one of the effects of that disease. There was one statement in reference to a distinguished gentleman (Dr. Thomson), which he was confident Mr. Skeene did not intend to make. He thought that all invidious distinctions of the kind were quite out of place in that Society.

Mr. SKEENE explained, that the statement which he had made, was one called forth in self defence, as an apology for the length of time he had occupied the attention of the Society. He had no wish to give any offence to the gentleman alluded to, whose merits, as well as his works, were well known to every one.

Mr. LAMBERT had expected to hear from Mr. Skeene a definition of aneurism which would have satisfactorily pointed out the distinction between true aneurism and false aneurism, a part of this subject which seemed to be involved in considerable obscurity, and on which the opinions of the profession were by no means settled. Scarpa had advanced the doctrine, that aneurism, truly so called, could not exist without a rupture of the coats of the artery, although he admitted the existence of dilatation of an artery, so as to form a tumour, and that aneurism was frequently engrafted on that state. He had been repeatedly assailed about a case of carotid aneurism, where he had tied the artery beyond the tumour, and told, that it was not a case of aneurism, but that it was merely a dilatation of the vessel, an instance of what is called in ordinary language, true aneurism. It had been remarked, that this state might have existed for many years, without producing any danger to the life of the patient. He would be glad to know how they were to distinguish this state, and how they were to know that it would not proceed to the formation of false aneurism, which Scarpa had observed to be a common occurrence. He believed that almost every case of aneurism in the *large* vessels commenced in an universal yielding of their coats, from disease, and that subsequently, the diseased coats becoming ruptured, blood was effused externally to the vessel, and then, what is called *false* aneurism was produced. He therefore considered what was termed aneurism by dilatation, to be merely a condition of the large vessels, precursory to a rupture; and probably the dilatation was greater in the large vessels, owing to their coats being more elastic than those of the smaller vessels, in which dilatation of any magnitude was never found. Mr. Skeene had made an observation, which he believed the experience of all the practical men in the room could not agree with, viz. that the treatment by bleeding would be more effectual in cases of simple, than diffuse aneurism; in his opinion, practical experience would be found to support entirely the opposite conclusion.

Dr. JOHNSON observed, that Mr. Lambert was quite correct in his enunciation of Scarpa's doctrines, which he believed were now admitted by all pathologists to be erroneous. Breschet, than whom a more enlightened pathologist did not exist in Europe, had proved by a great many dissections, that although the appearance of an aneurismal pouch, formed merely by the dilatation of the coats of an artery, was an occurrence comparatively rare, yet that it existed sufficiently often to prove the impropriety of Scarpa's views. The heart, which is the very centre of the circulation, when affected with aneurism, was seldom found to be ruptured, but, on the contrary, merely dilated; instances of false aneurism of the heart had, however, occurred, and he was happy to show a very fine specimen of the disease. (The Doctor here handed round a preparation, the peculiarities of which, from the untidy and unscientific manner in which it was put up, we were totally unable to distinguish.) Mr. Lambert, he believed, alluded to the statement he had made concerning his case of carotid aneurism, and certainly, from the description of the tumour, and from the drawing of it which he had seen, he firmly believed it to have been one of dilatation of the carotid artery. He did not, however, by any means wish to infer, that the operation was useless, or ought not to have been performed; on the contrary, he entirely agreed in the propriety of that operation, and thought that Mr. Lambert was perfectly justified in adopting it.

Mr. LAMBERT thanked Dr. Johnson for the handsome and candid manner in which he had stated his opinions concerning his case, and confirmed the propriety of the operation which had been performed.

Mr. MAYO observed, that he had, in the museum of Windmill-street, a very fine specimen of true aneurism, where the sac, which was sufficiently large to hold a filbert,

was formed by the dilatation of all the coats of the vessel. In dissecting a lioness lately, he had met with several aneurisms of the same kind. Mr. Mayo again alluded to the case of aneurism of the popliteal artery, which had occurred in St. George's Hospital, where the patient had died of secondary hæmorrhage, and directed the attention of the Society to the consideration of the propriety of amputation in similar instances.

A young but experienced member of the Society, Dr. Duffin, then related a great many interesting cases of aneurism, which had come under his own notice. He had, when in Edinburgh, been called to a child, who was almost in articulo mortis from hæmorrhage from the mouth, as may be readily believed; he had tried a variety of treatment without effect, and had even tied the carotid artery. The patient, however, died, and on dissection there was found an aneurismal tumour extending from the posterior maxillary foramen to the symphysis menti, the coagulated blood being contained in a sac formed by the periosteum of each side of the inferior maxillary bone. This singular case was, he believed, the only one of the kind on record, and the members would find an accurate account of it in the last Number of the Edinburgh Medical and Surgical Journal for 1825. He had once opened a body where an aneurism had produced absorption of the vertebræ, and he found that the blood was not separated from the cancelli of the bone by any cyst, but was in immediate contact with the osseous structure. When an aneurism compressed a bone, it did not produce absorption of it, till the cyst of the aneurismal tumour and the periosteum had disappeared, and then it seemed almost to wash away the bone. When in Florence, he had attended a patient for enlargement of the heart, who had previously been under the care of the celebrated Laennec. By his orders she had worn a bandage for compressing the thorax, which she made a present of to him, and which he exhibited to the Society.

It was then announced from the chair, that Mr. Andrews would read a paper at the next Meeting on the subject of tetanus, and the Society adjourned.

LONDON MEDICAL SOCIETY.

Monday, November 19.

Dr. Haslam, President, in the Chair.

Mr. Callaway moved a vote of thanks to Dr. Haslam for his valuable and interesting series of Lectures on the Intellectual Composition of Man; the motion having been seconded by Mr. Drysdale, was unanimously adopted amidst strong expressions of satisfaction on the part of the Society. Dr. Haslam briefly returned thanks.

The case of parturition, related by Dr. Blick at the former meeting of the Society, was again brought forward, and formed a theme for animated discussion during the whole of the evening. As we are aware that the particular method of treatment adopted by Dr. Blick in the case alluded to has excited general interest, we will here recapitulate the leading facts; by so doing, also, we shall enable our readers to form a more correct and striking estimate of the arguments adopted this evening on either side.

Dr. Blick was called to attend a woman in labour, who (if we recollect rightly) had borne several children previously. It was what is obstetrically termed a footling presentation. The labour went on properly and naturally, until the body of the child was expelled, and the head only remained in the vagina; at this period, the womb ceased to contract, and remained inactive for a considerable time. It was in this state of affairs, that Dr. Blick, anxious for the life of the child, (which had exhibited some precursory symptoms of dissolution, by convulsive jerkings,) determined upon inflating the lungs. With this view, he passed a silver female catheter into the child's mouth; and having attached the nozzle of a bellows to the catheter, readily succeeded in effecting the desired object. In the course of a few minutes, the respiration was fully established, and, in fact, the child was heard to cry; Dr. B. now applied the forceps, and delivered the woman without further difficulty.

The principal points of discussion in this case, on the last evening, were—the practicability of applying the forceps under the peculiar circumstances; and, in truth, the *possibility* of applying them was denied. Hence arose some observations on the general use of the forceps, in which, as we before remarked, there was much opposing testimony. This evening it was again contended, that the shoulders of the child would prove an effectual obstacle to the use of the forceps; besides, as it was possible to introduce the finger into the mouth of the child, a very efficient force was obtained.

Dr. Walshman said, that, in the case related by Dr. Blick, there could not possibly be an easier position for extraction of the child, than that in which it was placed: he was surprised that any one should think of applying the forceps under such circumstances. He said that he had seen and attended many cases of a similar description, but had never used the forceps; and,

indeed, he thought it impossible to apply them. With respect to the use of the forceps generally, he observed, that he had been compelled to resort to them in a great number of cases, but had always employed them with ease and safety. He had, however, known the forceps used so as to produce extensive inflammation, and, subsequently, sloughing of the vagina, and other mischief. The forceps would succeed in many instances where the vectis would be of no avail. The inflation of the lungs, was the next obstinate point of contention, for the battle was fought inch by inch. It was strenuously argued, that it was impossible to inflate the lungs of the child, because it was necessary, in order to effect this object, that the point of the catheter should pass into the trachea. Now, as the position of the child was with its face towards the sacrum, it was contended, that a double curve must be made, which could not be accomplished with the female catheter. It appeared, however, that Dr. Blick had by no means asserted that the catheter entered the trachea, but simply the mouth; and to an objection from Mr. Waller, that in this case the air would pass down the œsophagus, Mr. Kingdon remarked, that the pressure of the child's nose against the parietes of the vagina,—the pressure on the neck, which would push the œsophagus backward and compress it against the spine, taken in conjunction with its collapsed state, rendered the artificial respiration complete.

The *necessity* of employing artificial respiration in Dr. Blick's case was then denied; even admitting its possibility, it was said, that the most judicious treatment, and the one generally pursued under the circumstances, was, not to cut through the funis, but to allow the child (when in such a weakly condition) to retain its connexion for some time with the placenta; thus, of course, permitting the circulation to be continued. Dr. Blick reiterated strenuously the opinion which he expressed on a former occasion, that in 99 cases out of 100, the placenta was detached from the womb at the act of expelling the child; and, consequently, he did not believe that circulation through the funis was carried on after this event had taken place. He contended it was impossible the fœtal and respiratory or general circulation should be continued both at the same time—that when the one ended, then the other commenced. In opposition to this, the familiar fact was adduced, of pulsation being observed in the chord, in almost every case, at the time of applying the ligature, and when the child is breathing and crying; the very circumstance, also, of the necessity of tying the funis after the birth of the child, was urged as a proof of circulation being still continued within it. Dr. Blick said that the navel string was never tied in brutes, and he denied that pulsation existed in the chord.

Dr. Blick underwent a heavy *cannonading*, but he fought manfully. Upon the whole, the debate, although of a very irregular character, was highly interesting. Dr. Williams was tremendously severe in his denunciation of instruments; comparing a man who went about carrying forceps up his sleeves, to an assassin with his stiletto.

NON-MEDICAL CORONERS.

INQUESTS AT DOVER AND SHELTON.

[*From a Correspondent.*]

The following are the facts connected with the case of Weston:—Tuesday, Oct. 2., John Weston obtained a presentation ticket from a lady in the town, to the *Dover Dispensary*, of which Mr. Sankey is the surgeon. The patient had a rheumatic affection, with some degree of fever, which was not considered dangerous, and was bled by the apprentice of Mr. Sankey. The patient, aged 45 (who, in his younger days had been a servant to a medical man), expressed his opinion, that he had received injury from the operation. About four o'clock on Wednesday morning the arm had become so much swollen, that the patient desired his wife to go for medical assistance, that he might have relief from the bandage, which was so tight on the arm. An assistant came, slightly loosened the bandage, and administered an anodyne. After this things grew worse, and Mr. Sankey, with his two PUPILS, performed some operation upon Weston's arm. On Thursday morning at four o'clock the patient expired.

Dissatisfaction arising in the *Dispensary Committee*, and also with the public generally, an inquest was determined on; Mr. Sankey hearing of this, observed, he should court inquiry. The inquest was held on Thursday evening, at the Wellington inn, by John Shipden, Mayor and Coroner of Dover. At this time only Mr. Sankey and his pupils were examined; neither the man's wife, nor any other person being called; Mr. Sankey informed the court, on his oath, *that the artery of the arm had not been cut, and that he had tied it.*—The incongruity of this evidence not being apparent to non-medical persons, a verdict was returned, *Died by the visitation of God!* The public mind now being more dissatisfied, application was made to the Coroner for a second inquest, whereupon he stated, he

would cause the arm to be inspected by some medical man, especially appointed for that purpose, and upon this report would depend his granting a second inquest. A physician and two surgeons accordingly inspected the arm, and reported to the Coroner, that they had found two ligatures placed on the brachial artery, from below which, one inch of the same artery had been cut away, (at the part corresponding with the orifice of the vein, in which the patient had been bled,) thus preventing their decision as to whether the artery had been wounded in bleeding. Notwithstanding this circumstance more imperiously called for a second inquest, still the Coroner could not see that any further proceedings were requisite, and therefore permitted the man to be buried on the Sunday following. Several individuals in the town having remonstrated against the conduct of the Coroner, he at length convened a meeting of the magistrates, when a *second inquest* was determined on, and was held on the following Tuesday, at the Saracen's Head Inn; the body having been for this purpose disinterred, on account of some of the jurymen on the former inquest being absent. At this inquest, Mr. Sankey informed the court, that after the patient had been bled by his apprentice, he thought that an *internal arterial bleeding* existed, to put an end to which, he *tied* the artery above. That after Weston's death, he found, on examination, the artery had *not* been cut; thus acknowledging, that he had performed the operation unnecessarily. With respect to the portion of artery that was missing, he stated, that he directed his assistant to cut off about one inch of it, and slit it up longitudinally, to see if it were diseased, which does not appear to have been the case. The evidence of the wife being now wanted, the Mayor (strange to say) at that very juncture informed the court, that he had just received the intelligence that Mrs. Weston was in strong fits, and on this account no further proceedings were taken; as Mr. Sankey did not produce the portion of artery, the public have not been able to obtain proof of its not having been wounded. We therefore submit to the medical public, whether any other construction can be put upon this proceeding, than that the artery had been in reality injured, but, that Mr. Sankey having positively sworn at the first inquest that it was not, found himself under the necessity of appearing the *bad surgeon* rather than the PERJURED MAN; on this most material point let the competent decide. On the following day it was discovered, that Mrs. Weston had *not been in fits*, as had been stated, and that she was perfectly in a condition to have given her evidence, but that the Coroner had not sent for her! The intelligence of Mrs. Weston being in fits, was traced to a woman who has since sworn before the said *Coroner*, that *no one* had induced her to make that false report, and that she had done it *spontaneously!!* Thus this point, like that of the wound of the artery, lies INTRENCHED BEHIND OATHS, the truth of which is irreconcileable with the facts developed. With regard to the verdict of the second inquest, a majority of *one* decided as before—*Death by the visitation of God*; the rest of the jurors confessing themselves utterly unable to come to such a conclusion.

On Monday the body of a new-born male child was discovered in a privy at the back of a house in Shelton. A woman named Ann Bailey, suspected to be the mother, was accordingly taken into custody. An inquest was held on the following day, at the Red Lion Inn, before John Dent, Esq., when the following evidence was brought forward:—William Bailey (uncle to Ann Bailey, the prisoner) deposed, that on Sunday evening his niece complained of pain in her bowels; she took some syrup of rhubarb, and said it relieved her; after witness had retired to bed at night, he heard his niece go out of doors; she remained out a considerable time, afterwards returned into the house, and retired to bed till the following morning. Catherine Till, a neighbour, had entertained suspicions of Ann Bailey a pregnancy, and was induced to examine the privy, where she found the body of a newly-born male child, immersed in the filth, and covered with ashes. The latter part of this witness's evidence was corroborated by a man named Moor, who assisted in taking the body out of the privy. Mr. Harding, surgeon, on Monday was called in to examine the infant, which the prisoner acknowledged to be hers. This gentleman then gave it as his opinion that the child was still-born. After the evidence, Mr. Dent addressed the jury. He explained the law as to the case before them, observing, that though it appeared, from the evidence of Mr. Harding, that the child was not born alive, yet the offence of concealing its birth was so fully proved against the prisoner, that it became their duty to make her a public example. This could only be done by returning a verdict of wilful murder against her. If they did not return a verdict to that effect, the prisoner must be immediately set at liberty, and the ends of justice defeated. The jury consulted a few minutes, and returned a verdict of *Wilful Murder* against the supposed mother, who was accordingly committed to Stafford gaol, on the coroner's warrant.—*Pottery Mercury.*

THE LANCET.

London, Saturday, November 24, 1827.

We this week give the continuation of the discussion before the Medico-Chirurgical Society, on the treatment of Erysipelas; and as far as circumstances permit, a faithful report of the admirable reply of Mr. Lawrence. It is impossible not to observe the marked influence which the publication of the proceedings of this Society has had on the character and spirit of its discussions. Its meetings have never been so numerously attended, and its debates have never been characterised by so much ability, as they have been during the present season; and it remains only for the Society to emancipate itself from the implied obligation under which its members are supposed to be restrained from giving publicity to its proceedings.

We cannot, at this time of day, anticipate any opposition to the course which it is incumbent upon the Society to take, in order to give full effect to its own usefulness, and to render its labours available to the profession and to the public. No member will now, we presume, venture to urge that the immediate publication of reports of the Society's proceedings will have the effect of injuring the *sale* of their annual or biennial volume of Transactions. The times are changed since we were denounced as "literary depredators and vampires," for conveying this species of information to the profession, and we now find even our old opponent, Dr. James Johnson, among the most strenuous champions of publicity. By dint of a free application of the The Lancet, and a spare diet, the Doctor has been brought to his senses; he is mainly indebted to us for the removal of an apparently desperate state of cerebral congestion, and the admission of a few rays of intellectual light into a quarter, where "Chaos and old Night" once held undisputed sway. The Doctor now declares all who throw obstacles in the way of giving publicity to medical proceedings, to be "vampires,"—he has always recourse to a *vampire* in a case of emergency; he now ekes out his quarterly Journal with our lectures and hospital reports, and even invites students to furnish him with reports of hospital cases, for the tempting premium of a complete set of his own review, which set of course contains the article in which he recommended the expulsion of any student, who should venture to communicate such reports to a Medical Journal. But we will not press the Doctor too closely. We phlebotomised him to syncope in our younger days; but he must at any rate give us credit for a generous forbearance at the period of his exhaustion and decline. We could never say of him, "*cum talis sis, utinam noster esses;*" but we are, nevertheless, content on the present occasion to acknowledge him as an ally, without too rigorously scrutinising the grounds of his conversion.

If there be any by-law or order in Council of the Medico-Chirurgical Society, prohibiting its members from giving publicity to its proceedings, some member should at once move that such by-law or order be rescinded, and follow up his motion by a resolution declaratory of the inexpediency of such restraints upon publicity. If any member should be disposed to resist such a motion, we shall have the satisfaction of knowing the grounds of his opposition; and, though it may be matter for our future consideration to determine whether we shall continue giving reports of the Society's proceedings, unless some such measure as that we have pointed out be adopted, we pledge ourselves to give a faithful report of the observations which may fall from any advocate of the "hole and corner" system.

We may lay it down as an axiom that there are two classes, and only two classes,

of men who have reason to fear publicity, and who consequently dread and hate the press. These two classes consist of *knaves* and *quacks*; in which last designation we comprehend not merely medical quacks, but political and literary empirics—quacks in philosophy, in religion, in morality, in *toto*—pretenders, in short, of all descriptions, callings, and complexions. Empiricism is no more confined to the medical profession, than pedantry is the exclusive characteristic of pedagogues and philologists. Medical quacks, and scholastic pedants, furnish, no doubt, some of the most obnoxious specimens of the classes to which they respectively belong. Dr. SOLOMON attacked our surplus population with his *anti-impetigines*; and Dr. GEORGE, of Eton College, observed of FREDERICK the GREAT, that, notwithstanding all the reputation that monarch had acquired, he (Dr. George) doubted whether his majesty would have been able to conjugate a verb in *μι*. Here are two goodly ensamples of quackery and pedantry; the SOLOMONS and GEORGES are of all professions. A quack is one who seeks to defraud us of our money or our approbation, by pretending to a knowledge of something of which he is ignorant; while a pedant is one who disgusts us by the impertinent obtrusion, or unseasonable display, of the knowledge he has acquired. Hence quackery and pedantry are co-extensive with the fraud and folly of mankind, and will be found to flourish in every department of human knowledge; for whatever men know, they may unseasonably and absurdly display; and whatever they are ignorant of, they may impudently pretend to have acquired. It will be seen that we have not included *fools* among the enemies of publicity, because a mere fool is not worth, and could scarcely feel, the powder and shot of public animadversion; but if a fool unite any portion of mischievous pretension with his folly, he will then take his place among one of the classes of *quacks*. Quackery is a sort of pepper-and-salt mixture between knavery and folly; approximating to the former, if the pepper predominate, and to the latter, if there be a greater proportion of the colourless ingredient.

The dread and detestation of the press, which more or less characterise both these classes, are phenomena which admit of an easy explanation. To begin with the knaves: whatever may be the rank of the individual belonging to this class, or upon whatever scale they may conduct their operations, they will be found, one and all, to entertain a common predilection for *concealment*. From the First Lord of the Admiralty, who may have appropriated a portion of the public siller, or the eminent banker who may have imitated the signatures of his confiding customers, down to the foreign musician, who may have escaped from the shackles imposed upon him by the harsh laws of his native country, for a series of similar imitations, to mingle in our domestic circles, and approximate his respectable person to the wives and daughters of our aristocracy; it will be found that each and all of these persons have a common passion for *concealment*. If Drs. GALL and SPURZHEIM failed to find the organ of *secretiveness* as large in this class of persons, as that which impels them to appropriate the possessions of their neighbours, they must abandon their system of phrenology. Now, if it be the nature, or rather if it be the interest, and, consequently, part and parcel of the character of these persons to love concealment, it follows that they must dread and hate the instrument which drags them from their beloved seclusion. How bitterly must that ingenious person, Mr. WILLIAM SOAMES—we run the risk of libelling that gentleman, since we know that we can keep him some time at *bay*—with what bitter feelings, we say, must Mr. WILLIAM SOAMES have regarded the newspaper press, which teemed with the broadest insinuations against his character; and incessantly

poured forth paragraphs, of which the manifest tendency was to render his life uncomfortable, and even to hurry him to an untimely grave! How acute must have been the sensations of the foreign musician, who selected our country as a place of refuge from the galleys, to which he had been condemned by the too rigorous dispensations of the French penal code, when he saw his character attacked in one English journal, by a republication of the official document detailing his seven successive convictions for different forgeries, and his honour wounded in another, by an unfeeling allusion to the brands which the public executioner had inflicted on his person. Incensed at this inhospitable treatment, the refugee sought redress in an English court of justice; and it was one of the proud triumphs of our criminal law, that the respectable editor of an English journal was found guilty of the *crime* of informing his countrymen that a foreigner, who was gaining access to our fire sides, and who had nearly succeeded, under the patronage of an archbishop, in maintaining a situation in which the education of youth would have been confided to his superintendence, was a convicted and branded felon!

Quacks have nearly the same interest as knaves in concealing their ignorance and frauds, and for the most part regard with the same fear and detestation the instrument which unmasks their pretensions. This must be understood with some qualification, because the exposure of ignorance and fraud is not always sufficient to open the eyes, and enlighten the understandings, of mankind. Some perverse dupes are not to be reasoned out of their infatuation; they had rather hug the impostor, than confess the cheat; and quacks, speculating upon this infirmity of human nature, will sometimes court even an infamous notoriety. Notwithstanding this exception, however, the principles we have laid down admit of very general application, and we shall conclude by observing, with reference to the subject which led to these remarks, that, if there be any one member of the Medico-Chirurgical Society, who has more especial reason than another to dread publicity, and shrink from the exposure of the press, *that member* belongs to one of the two classes above designated.

MEDICO-CHIRURGICAL SOCIETY.

B. Travers, Esq. President.

The Secretary read some additional cases of erysipelas, communicated by Mr. Lawrence. Among these we noticed an interesting example of the phlegmonous species in a medical man; it affected the hand and forearm, and was immediately stopped by an incision, which was followed by rapid recovery: another of erysipelas of the face, with severe affection of the sensorium, following an operation, immediately and effectually relieved by copious venesection (two pints) and purging; phlegmonous erysipelas of the forearm, spreading in spite of venesection and leeches, and stopped by incision; and, lastly, a fatal case showing the danger of the treatment by compression, recommended by a French surgeon, we believe Velpeau.

A short communication was then read from Mr. C. Hutchison, of which we could only collect, that it contained an account of a half finished case, although the name, occupation, and abode of the patient, were stated at full length, viz. Mr. Salter, silversmith, Strand!! and that the author protested loudly against long incisions in erysipelas.

After Dr. Birkbeck had offered some strictures on the treatment pursued in these cases, a pause ensued, which was ended by Mr. Lawrence rising to address the Society. He began by replying to the remarks of Dr. Birkbeck, and then observed, that as no other gentleman seemed inclined to speak on the subject, he would proceed to make a few observations by way of explanation and answer to the several gentlemen who had offered remarks on his paper. "Erysipelas," said Mr. Lawrence, occurs so frequently, and is so often of a serious nature in its immediate symptoms and consequences, that I think the time of the Society has not been misemployed in discussing the subject, more especially as the profession seem by no means unanimous on the

important point of treatment. I am glad that my communication has been the exciting cause of such discussion; and I shall be still further gratified, if other members should be induced to communicate to us the results of their experience. I speak now on the supposition, that of the two opposite methods of treating erysipelas, one must be right, and the other wrong. I differ, therefore, entirely from a gentleman who spoke at the last meeting, and who admitted that both these methods were equally successful: he even went further, and attempted to explain how these opposite means accomplished the cure of one and the same complaint. If I had admitted the fact of equal success, I should not have attempted the explanation which this gentleman entered on, but inferred that neither course of treatment had any effect, that the disease would pursue its progress uninfluenced by our measures. The exact nature of my views has been misapprehended by those who have addressed the Society, in opposition to what they have considered as my opinions; and I am not surprised at this, for some of these gentlemen had not heard the paper read, and those who did hear it could not be much better off, as the audience could only gain a general idea of the author's sentiments, from a single rapid reading of a long paper. I must observe, then, in the first place, that I do not recommend one and the same mode of treatment in all cases; I do not advise venesection in all instances of simple erysipelas, nor incisions in all those of the phlegmonous kind. I have endeavoured to show, from a review of the history, symptoms both local and general, and effects, that erysipelas is an inflammatory affection; that it is, in short, just inflammation of the skin and cellular texture, and that it is no more. I have hence argued, that on principle, it ought to be treated anti-phlogistically; and I have attempted to prove, further, that the evidence of facts supports this deduction of reasoning. But the antiphlogistic treatment embraces a wide range in point of degree; from blood-letting, local and general, with purging, vomiting, the free use of mercury, antimony, with low diet, to the exhibition of a mild aperient and some saline medicine. Our treatment of erysipelas, like that of any other inflammation, must be graduated according to the age, constitution, previous health and habits of the patient, the period of the complaint, &c. &c. If my observations had been addressed to students, instead of practitioners, I should have entered at greater length into the modifications of the general principles, which various circumstances may require, and the restrictions under which particular measures, especially those of the more active kind, are to be employed. I have, however, adverted to the chief of these. I have stated that erysipelas frequently ends in resolution, that is, in the spontaneous disappearance of the symptoms; and hence, that severe measures are not universally necessary. I have observed, that the parts affected, the skin and cellular substance, are not essential to life, and that their functions can be carried on after they have undergone extensive change of structure; hence, the same reasons for very active treatment do not exist here, as in inflammations of the brain, lungs, or heart, or in those of the eye. I have stated further, that when erysipelas occurs in old and debilitated subjects, the powers of life are soon seriously impaired, and our efforts must be directed rather towards supporting them, than the combating the local inflammation; and that I have often seen such patients labouring under erysipelas of the face in its advanced stage, with rapid and feeble pulse, dry and brown tongue, recovered, under circumstances apparently desperate, by the use of bark and wine. These exceptions might, I think, have exempted me from the charge of using one kind of treatment indiscriminately in all cases; a very small share of experience would be sufficient to show the absurdity of such a proposal. In asserting that the antiphlogistic treatment is proper in erysipelas, I speak of the beginning of the disease, when the original and proper character of the affection is apparent; and I am decidedly of opinion, that in some shape or other, such treatment will always be beneficial in that stage. In many instances, I am convinced that active antiphlogistic measures are of the greatest service in lessening the severity both of the local and general symptoms. And here I feel it incumbent on me to show, that such means actually possess the power of controlling the disease; for Mr. Brodie, if I understood him rightly, denied this position. He said that you cannot *put out* erysipelas any more than you can *put out* typhus. Now, I will not call this an explanation of obscurum per obscurius, because I do not think erysipelas an obscure subject; but it seems to me an attempt to elucidate what is already clear enough, by what is comparatively obscure. Before I can understand this statement, I must ask Mr. Brodie what he means by typhus? Is the meaning of typhus so clear, is the state denoted by it so well understood, that we may hold up the word like a torch, to throw light into the dark corners of pathology and therapeutics? Are we to understand by typhus, a certain class of continued fevers! those in which the functions of the nervous system are seriously impaired, and in which the dangerous symp-

toms are referrible to disorder of the head? Or merely a certain stage of such fevers, that advanced period, in which a collection of the most formidable circumstances proclaims the serious danger of the patient, showing that the nervous system has been deeply affected, and that for some time? I shall readily admit the propriety of Mr. Brodie's representation, if he uses the word in the latter sense. A disorder of the brain, arrived at the point now alluded to, cannot be *put out*, or suddenly checked; the same observation holds equally good of pneumonia, enteritis, and all other inflammations, considered in an equally advanced stage. But I beg to lead Mr. Brodie back from the end to the beginning of such a case, and to draw his attention to the symptoms of the first 24 or 48 hours. After an attack of shivering, lassitude, inability for exertion, bodily or mental, confusion and pain of the head, thirst, white tongue, loss of appetite, and nausea will come on. I assert, and repeated experience enables me to assert it confidently, that the free use of the lancet, with other appropriate treatment, will cut short such an attack, will suddenly stop it, and reduce to a few hours what would otherwise last for days or weeks. In the same way, active treatment of the early stage will arrest the progress of erysipelas; not immediately put an end to it, as you can stop the burning of a candle by an extinguisher, but lessen the violence, and greatly abridge the duration of the disease, in short, will *put it out*, as far as any kind of inflammation can be put out. Mr. Lawrence stated, that he had recently experienced in his own person the truth of these remarks in respect to that collection of symptoms denoting affection of the head, which characterise the commencement of fever. On the preceding Thursday, he had had an attack of shivering, followed by loss of strength, confusion, and heaviness of head, &c. His friend, Dr. Tweedie, who saw him within twelve hours from the first feeling of illness, directed a large bleeding; and he lost 32 ounces of blood, with complete relief; he slept well, and awoke quite well in the morning. On Saturday, feeling in his usual health and spirits, he imprudently exposed himself to some causes of excitement, and experienced a relapse on Sunday, with more alarming symptoms than at first. These were again stopped by the loss of more than 40 ounces of blood, and he was consequently enabled to redeem his pledge of attending the Society this evening (Tuesday). He felt convinced, that the result would have been very different, had he been under the care of one who held the opinion that fevers cannot be *put out*, who would therefore allow them to burn on until they *go out* of themselves, which is often a very tedious process, to say nothing of the danger. He repeated his opinion, that many cases of continued fever may be stopped in the beginning, or *put out*; and he thought it more necessary to express himself very earnestly on the subject, as he considered the opposite doctrine calculated to lead to a very pernicious mode of practice, and likely to be the more injurious, from the high authority under which it would go forth to the world.

Mr. Lawrence then alluded to the treatment of erysipelas by bark, and expressed his surprise that its advocates had not favoured the Society with their opinions or experience. The only testimony they had heard from that quarter in which the practice had originated, and where it had been commended in such unqualified terms by Drs. Fordyce and Wells, was the very clear and able statement of Dr. Roots, who had decidedly condemned the use of the bark, and mentioned his preference of the antiphlogistic plan. Mr. Lawrence said, that when the febrile symptoms had been mitigated, the inflammation stopped, and the tongue had become clean, that is, when the patient is well, he saw no objection to the bark. He professed not to know what the effect of bark is on the animal economy, excepting its singular power of stopping intermittent fever, and wished for information on the subject. He alluded to the circumstance of its frequently purging, when given in large doses; and he had seen cases of erysipelas treated by it in hospital practice, where the nurse of her own accord was daily administering an active purging mixture. Mr. Lawrence proceeded to the subject of phlegmonous erysipelas, and observed, that we must not treat diseases merely according to their names. Diseases appear quite distinct in nosologies, but we find them shaded off, and inseparably blended in nature, so that it is frequently very difficult to mark out their boundaries. He exemplified this in respect to simple and phlegmonous erysipelas, and then defined the exact kind of cases which he included under the latter term. He by no means meant to recommend incisions in all cases, and begged to apprise Dr. Bright in particular that he did not. The Doctor had informed the Society on a preceding evening, that he rejoiced in not having heard the paper read, as he should probably have directed incisions in the case of an old lady with erysipelas of the face, who had got well without them. The old lady had formed a more correct estimate of the Doctor's judgment and prudence, than his own modesty had allowed him to do; she knew that if he should hear of any foolish proposal, he would not try it on her. Mr. Lawrence now stated, to ease the mind of

Dr. Bright, and of all old ladies, that he had never practised incisions in erysipelas of the face, except in a few instances, where the copious cellular tissue of the eyelids had become the seat of the affection, and had suppurated and sloughed. Here he had found the practice very serviceable, and he need not add that it was quite safe. Various objections have been made to the practice of incision in phlegmonous erysipelas; some of them good, others good for nothing. You, Sir, addressing the President, stated that leeches and fomentations, with the free use of calomel and antimony, would accomplish the object; and that you had always succeeded with these means. If these representations be well founded, I readily admit that incisions ought not to be thought of. It is a question of experience, and, on this point, my experience is just opposite to yours. I have repeatedly found both general and local bleeding inefficacious in this affection; and the cases related in my paper, will afford ample evidence on the point. General bleeding exerts very little influence over the inflammation of the cellular texture; it is, therefore, only to be employed occasionally, when the general symptoms may demand it: the local abstraction of blood is more useful, and, in combination with suitable internal treatment, may arrest the affection in its earliest stage. But the inflamed cellular substance passes rapidly into suppuration and gangrene, and these destructive processes quickly spread over a large part, or the whole of a limb. I know of no treatment so capable of preventing them, while it is yet time to accomplish that point, or of limiting their extent, and favouring the processes of separation and reproduction, as the practice of making an incision through the affected textures. Other objections to this treatment are of a sentimental kind; it is said to be painful, severe, bloody; that it will frighten the patient, and alarm the attendants. Such inconveniences belong, more or less, to all operations; but the question is, whether the operation be necessary, not whether it will give pain or shed blood. If it be necessary, such objections are empty and frivolous. But what ground is there for considering this proceeding so very painful? Is the pain of a cut in a direct ratio to its length? If an inch of incision produce a given quantity of pain, will a foot give twelve times as much? I apprehend that the *time* occupied in cutting, is a more important circumstance in determining the quantity of pain, than the length of the incision; and as the largest cut that can ever be required, may be made in five, or at most in ten, seconds, I cannot consider it a very painful affair. Mr. Cooper cannot be pleased by any kind of incisions: Mr. Hutchison's are too numerous; mine are too long. In short, he disapproves the practice altogether, and may, therefore, save himself the trouble of criticising the details. I am more surprised at the strong objection which Mr. Hutchison entertains to a long incision: he, forsooth, protests, nay, loudly protests, against the length of the incisions which I have made in some cases. Who is this protester? One who has recommended, that from six to eighteen incisions of *about* an inch and a half, should be made in the inflamed limb! Thus the minimum length with him is nine inches, while the maximum reaches twenty-seven inches, that is, three quarters of a yard! The largest I have made in any case, was fourteen inches. But, after all, what are his multiplied short incisions? Merely one long cut made by instalments. I think that both modes will answer the end; and then the selection will be a matter of taste for the patient's determination in each case. Should any one prefer having twelve separate cuts of an inch an half, to one of eighteen inches, I can see no objection to the gratification of so singular a taste. I must only observe that, were I thus circumstanced, I should *loudly protest* against Mr. Hutchison's practice. Mr. Cooper has not been contented with adducing all the arguments that his own reasoning and experience could furnish, but has shown his great zeal in opposition to the practice of incision, by industriously collecting every thing that he could hear of capable of being turned into evidence against it. He has alluded to three cases, not one of which does he seem to have personally witnessed. Two of these I have myself communicated to the society, so that the public will have the opportunity of judging how far they justify inferences fatal to the practice. Indeed, I have made a point of communicating every scrap of evidence that can be viewed in an unfavourable light. Mr. Cooper had heard of a case, in which fatal hæmorrhage took place from the incision. If he had heard of fatal hæmorrhage in amputation, or any other operation, would he therefore conclude that such operation ought not to be performed? The question is, whether the bleeding is essentially connected with the practice, and therefore unavoidable, or whether it is a circumstance that we could easily control. The incision does not go deeper than the subcutaneous cellular tissue: surely there can be no difficulty in restraining it, either by ligature, by position of the limb, or by compression, if it should proceed to a serious extent. Mr. Cooper heard of another case, where the patient died from the shock of the incision. As he is a person whose accuracy of expression is well known,

we must suppose that he means by death from the shock of an operation, a violent impression on the nervous system, ending fatally within a short time. I made the incisions in this case; no nervous symptom of any kind was apparent during ten minutes, at the end of which I left the patient quite tranquil. He was sleeping quietly at the expiration of twenty-four hours, with a tranquil pulse; and he survived the incisions thirty-six hours. The society will not be much surprised at the termination of the case, when they hear that it was a violent inflammation of the whole upper extremity, consequent on a puncture in dissection, and that I did not see the patient until an advanced period of the affection. In the third case which Mr. Cooper had heard of, sloughing of the cellular membrane took place after the incisions; there is no doubt that he may hear of many cases in which the same event has happened. When the inflammation of the cellular substance has gone to a certain extent, sloughing will ensue; incision will not prevent the occurrence, but it signally promotes the separation of the dead parts, and the subsequent healing. Has Mr. Cooper seen or heard of any case, in which incisions *caused* sloughing of the cellular membrane? I have not. I trust, Sir, that I have now sufficiently explained what I think respecting the general principles of treating erysipelas, and respecting the modifications and restrictions, under which these are to be carried into effect. The observations which I have heard in this Society, have not altered my sentiments on the former point in the slightest degree; I should now, at the end of the discussion, as at the beginning, express my strong approbation of the antiphlogistic treatment of erysipelas, and my equally strong condemnation of the tonic and stimulating plan."

Mr. Guthrie said that he was among those who had not heard the original paper of Mr. Lawrence read, and was therefore glad at having been furnished, this evening, with an epitome of the opinions contained in that paper. In many of the opinions expressed by Mr. Lawrence, he concurred, from others he differed, and in what points he differed he should now proceed to state. He might, however, observe, at the commencement, that seeing so many physicians around him, he was surprised that no one had replied to the doctrine advanced by Mr. Lawrence, that any fever could be put out.

Mr. Lawrence observed, that he stated no such thing.

Mr. Guthrie understood Mr. Lawrence to have made the assertion, and appealed to the President, to know what was the exact nature of the expression.

Mr. Travers did not understand that Mr. Lawrence had made use of the expression which Mr. Guthrie attributed to him, but he would ask Mr. Lawrence himself.

Mr. Lawrence said, that he did not make an unqualified statement, but only asserted that fever could be shortened by proper treatment at its commencement. He would however appeal to the President to know, whether, after having waited before he commenced his speech, for members of the society to make observations on his paper, he was not entitled to waive a reply. He should not claim this privilege, if from circumstances which he had stated in his speech, he had not felt himself unable to resume the discussion.

Mr. Travers said certainly Mr. Lawrence would be excused from making any reply. Mr. Lawrence then left the room, apparently very much exhausted.

Dr. A. T. Thompson made some observation on the treatments of erysipelas, and advocated the use of bark in this disease.

Dr. Babington. If, on the breaking up of this meeting, any member should ask another what had been the subject of the evening's discussion, it might be answered, the treatment of erysipelas by antiphlogistic measures. But if it should be asked, is erysipelas then to be treated antiphlogistically? that was a question to which an answer of yes, or no, could not be given. I consider erysipelas to be a disease, *sui generis*; frequently changing its character; requiring to be watched from day to day, and from hour to hour; demanding mild antiphlogistic measures in some persons, in others, a tonic and stimulating plan of treatment. It occurred sometimes in broken up habits, with symptoms of general debility; and it would be just as reasonable to expect to make a jaded horse run another stage by bleeding, or other measures which reduced his strength, as to expect to cure erysipelas by depletion. Erysipelas would require in some cases, especially in large towns, bark, ammonia, and wine, from its commencement; and therefore no plan of treatment can be laid down as uniformly applicable. He must repeat, that he considered it a disease, for the treatment of which no particular directions applying to all cases could be laid down, but one in which the judgment of the practitioner must be exercised, according to the circumstances of each case.

Mr. Guthrie again rose, and stated, that he should not, under present circumstances, allude to what had fallen from Mr. Lawrence, as he always preferred an open combat. As to the disease which had formed the subject of the evening's discussion, he had seen it under all its forms, both in private practice and the public ser-

vice, and had treated it in all its stages. From repeated experience, he had no hesitation in saying, that it was necessary to adopt opposite plans of treatment. It often happened, that in the Westminster Hospital he had two patients in the same ward, one of whom he treated on the antiphlogistic, the other on the stimulating plan. In fact, no rule could be laid down for the treatment of these cases, which must depend on the particular circumstances of each individual case. But he had no hesitation in saying, that neither fever nor erysipelas could be suddenly put out, when either had regularly commenced its action on the constitution; for if 10, 20, 30, 40, or even 60 ounces of blood were abstracted from a patient under erysipelas, the disease would not be shortened, it would run its course. Mr. Guthrie then commented on the treatment of erysipelas by incision, which he had himself very extensively used, and of the good effects of which he had some time ago published a case.

Dr. Tweedie stated that he should be sorry the meeting should adjourn, and probably reports of the discussion go abroad, without contradicting one of Mr. Guthrie's assertions, that fever could not be *put out*, according to the expression of Mr. Brodie. He maintained, from very ample opportunities of treating fever in all its forms and varieties, that, at the commencement, it was, in most instances, possible completely to annul its progress by vigorous measures, especially bloodletting; and that even a relapse might be cut short by a modification of antiphlogistic practice, according to the particular case. He alluded to two instances of relapse, which had occurred a few days before in the Fever Hospital, and in which he succeeded in arresting the symptoms by bloodletting. He therefore begged to offer his dissent from the statement on this point advanced by Mr. Guthrie. Dr. Tweedie then expressed his satisfaction at the opportunity which the adjourned meeting had afforded, of obtaining the opinion of eminent members of the profession on the nature and treatment of erysipelas. He expressed his own conviction, that it was essentially antiphlogistic, but, as Mr. Lawrence had very distinctly stated, the treatment to be adopted, although strictly antiphlogistic, must have reference to every individual case. One might require large and repeated bloodletting, a second a more moderate use of the lancet, while, in a third, this evacuation might be altogether dispensed with, and saline purgatives, with antimonials, employed. There was one form, however, which generally demanded bloodletting,—that of the face, in which there was usually more or less cerebral excitement, which was only safely treated by bloodletting. Dr. Tweedie then alluded to the opinions inculcated by the late eminent Professor Gregory, of Edinburgh, who was a strenuous supporter of the treatment of erysipelas by bloodletting; and, in his allusion to the idea that erysipelas assumed a different character in London and in Edinburgh, contended that this notion had its foundation more in fashion, than in the result of sober experience. Dr. Tweedie shortly alluded to hospital erysipelas, which had prevailed very much lately in the Fever Hospital. In this form, bark was generally thought almost a specific, but having repeatedly failed in his hands, he was now inclined to consider it of little or no value, and generally resorted to a mild cooling treatment with success.

Mr. Guthrie again rose, to explain what he had stated regarding the treatment of fever; and in reply to Dr. Tweedie's remarks, told the Society that he was aware of the efficacy of the treatment of fever by bleeding, which had been introduced more than twenty years ago, by Dr. Jackson, so that the practice was by no means novel.

Mr. Travers observed that the time of the Society had fully expired, and he did not wish to detain the members any longer. Before parting, however, he would just say, that from the discussion which had taken place, one practical fact at least had been shown, namely, that leeches might be applied to erysipelatous parts, and also incisions be made through them, not only without danger, but sometimes with advantage. In summing up the results of the debate, he could not refrain from expressing his opinion, that erysipelas would ever require a varied plan of treatment. As to blood-letting, he considered that but rarely necessary; that a milder antiphlogistic course would suffice, such as calomel, with antimonials and purgatives, in the majority of cases; and that he had never found it necessary to resort to any further abstraction of blood than could be procured by the application of from thirty to forty leeches, repeated according to the urgency of the case—from the orifices made by which a constant oozing of fluid took place, which relieved the tension and pain of the limb. As to the practice of making incisions, if he imagined them necessary at all, he should be content with the mode of puncturing the inflamed part with a lancet, as mentioned by Dr. Babington to have been practised with the greatest success by Dr. Dobson, Surgeon of the Greenwich Hospital, a practice which he was certain many members present would not lose an opportunity of trying. He could anticipate no case in which the incisions of Mr. Hutchison would not suffice; but as to carrying an incision along

a limb to the enormous extent of fourteen inches, or even half that length, it appeared to him to be a practice better fitting the dark ages of surgery, than the present times. It was a practice terrible to the patient, and revolting to the bystanders; and notwithstanding what had been said, it did appear that it was the cause of one man's dying of hæmorrhage, and that in another case the patient had died from the shock of the operation. He felt it his duty to protest against making such long incisions as had been recommended, as an unnecessarily severe, alarming, and dangerous practice.

The Society then adjourned at a quarter past 11 o'clock, till Tuesday, Nov. 27.

MR. GUTHRIE.

To the Editor of THE LANCET.

SIR,—Being equally anxious with "Amicus Justitiæ," whose letter appeared in the 220th Number of THE LANCET, that the truth should be laid before the public, we, the undersigned pupils of the Westminster Hospital, feel ourselves called upon to rebut the charges preferred against Mr. Guthrie, for neglect of attendance at the Westminster Hospital. We therefore most *unequivocally* declare that the author's statement is *false*; and further, that he must have been *perfectly conscious* at the time *that it was so*, if he be, as he insinuates, a pupil of the Hospital.

With regard to Mr. Guthrie's absence on the Saturday alluded to, it will only be necessary to say, that on the Wednesday previous Mr. Guthrie informed us that he would be under the necessity of leaving town, and should therefore visit his patients at the Hospital on Friday, instead of Saturday, *which he did*.

We are, Sir,
Your obedient Servants,

Edw. Davies	J. Fry
Tooker Cooban	James Davidson
T. M. Ridley	Thos Ward
B. Verling	J. M. Walker
Edw. G. Williams	John Folds
H. R. Donne	Richard Barter
William Wade	John Dorset
W. J. Thomas	Alex. Kilroy
William Trasdale	C. J. Barlow Connell
Thos. Williams	William Jones
James Grant	C. H. James
George Knapp	John Whitefield
George Baillie	J. C. Lunn.

Westminster Hospital, 19th Nov. 1827.

LONDON MEDICAL SOCIETY'S PAPERS.

To the Editor of THE LANCET.

SIR,—I trust to your candour for the insertion of the following explanation of the remarks I made at the General Meeting of the Medical Society of London, on the subject of papers read before the Society. I recited, it is true, an *old* law; but it was an unrepealed law; and I adverted to that statute, not for the purpose of recommending an enforcement of all its provisions, but to show the expediency of that part of the enactment which directs papers to be placed in the hands of the Secretaries or Registrar. It was formerly usual for papers intended to be read in the Society, "to be delivered to one of the Secretaries," who "laid them before the Council." This practice has fallen, almost entirely, into desuetude; probably from the discontinuation of the publication of the "Transactions" of the Society. But it is quite evident, that if some regularity in this matter be not observed, no collection of papers can be accomplished, and consequently no "Transactions" published. The Society has not, since I have had the honour of being connected with it, refused to return a paper to its author, after it had been read; and many papers have subsequently been published in the journals, as papers read before the Society. The reasons I assigned for requiring papers to be placed in the hands of the Registrar, were, 1st. That that officer might present, at the succeeding meetings of the Society, correct abstracts of their contents, 2d. The Society, offering annually two silver medals, one "for the best essay or essays read before the Society, written by a fellow;" and the other "for the best essay or essays read before the Society, written by a corresponding member, or any person not a member of the Society;" could not, if papers were withdrawn and not afterwards published, form a a judgment of the merits of such papers; and an author might thus lose the advantage of having produced a valuable work. 3d. Because, papers that had been read in the Society, have been published afterwards in the monthly journals, as "original communications," without the slightest notice of the Society; and I therefore contended, and justly I think, that the Society had by this practice, been "*robbed of the credit*" of having elicited these communications. I should be ashamed to be the advocate of any "hole and corner" doings in the republic of letters; in discharging the duties of my office, I have always attempted to place in the clearest light the opinions of the speakers and writers, who have come

before the Society; wishing to excite discussion, and thereby to elicit *truth*. So much utility has resulted from the Society to which I am attached, it is but fair that it should not be deprived of any of the merit, in which case it will continue to be encouraged, and the interests of science have the best chance of being promoted.

I am, Sir,

Your obedient servant,

JAMES FIELD.

Bolt Court, Nov. 20, 1827.

CASES OF TRAUMATIC TETANUS.

GUY'S HOSPITAL.

CASE 1.—*Tetanus occurring at a month subsequent to the receipt of an extensive lacerated wound of the skin.*—In the following fatal case of tetanus, the symptoms came on upwards of a month after the occurrence of the accident, which consisted in extensive laceration of the integuments of the fore-arm, and, as in a former case, the tetanic symptoms manifested themselves when the wound was apparently in the most healthy condition.

The patient, a man of intemperate habits, 70 years of age, was admitted into the Hospital on 25th September, under the care of Mr. Morgan, with severe laceration and contusion of the right fore arm. The accident happened on the day previously, and was occasioned by the wheel of a brewer's dray, which knocked him down, and passed obliquely over the arm, the old man being in a state of intoxication at the time. He was seen by Mr. Lambert, of Walworth, shortly afterwards, who found a lacerated wound of the integuments along the whole of the back part of the fore-arm, the skin being, in fact, completely detached in one large broad flap. There was considerable bleeding, principally venous; the muscles, however, apparently, were not lacerated, or the fascia injured. Mr. Lambert brought the skin together, securing it by a few sutures and strips of adhesive plaster. On the following day the man was sent to the Hospital, it having been found impossible to obtain for him at home the attention which the nature of his case required. At the time of admission, he was suffering from exhaustion: the loss of blood, with the severity of the injury, the previous state of intoxication, and his age, were evidently causes which combined to produce this effect. Mr. Callaway, therefore, very judiciously commenced with the use of diffusible stimuli, as the julep of ammonia, with some wine. Two days after admission, there was considerable swelling of the arm, and it was apparent that a large portion of the skin which had been replaced, would slough; the plaster was removed, and one or two of the sutures also; the limb was envelcped in a poultice of stale beer grounds; and sulphate of quinine, with a liberal allowance of wine, were prescribed. Under this treatment the slough gradually separated; however, a considerable portion of the integument united; the nitric acid lotion was applied by means of lint at the same time with the beer poultices, and eventually a healthy granulating surface being produced, simple dressing and common poultices were applied. On the 28th of October, (Sunday morning,) in going round the Hospital, Mr. Callaway's attention was directed to the patient, in consequence of tetanic symptoms having manifested themselves. The angles of the mouth were drawn back, so as to give a singular appearance of distortion to the features; the jaws could only be separated to a short distance; the muscles of the neck, but more especially those of the abdomen, were very rigid. It is here worthy of remark, that the old man had been for some time in a state of fatuity, and this became more and more perceptible as he was recovering from the accident. He was exceedingly obstinate, and difficult to manage, and answered all questions in an incoherent manner; so that at the present time no information could be elicited from him with respect to his feelings, or the accession of the tetanic symptoms. The bowels were lax; the pulse small and weak: *the wound of the arm was nearly healed.* Mr. Callaway prescribed five grains of the carbonate of ammonia, with ten minims of laudanum, and twenty minims of Hoffman's liquor, to be taken every eight hours. On the following day, 29th, the jaws could be separated to a greater distance, but the abdominal muscles were equally rigid; the laudanum and æther ordered to be taken every four hours, and forty minims of laudanum given at bed time. On the 30th he was much the same; all the muscles of the body were preternaturally rigid; and although there was no marked convulsive effort, yet he complained of occasional cramp in the muscles on the back part of the legs: thirty minims of laudanum, with eight grains of carbonate of ammonia, and a drachm of æther, were given every four hours. On the 31st, the symptoms continuing unrelieved, the dose of laudanum was increased to *forty minims*; on the 1st of November, to *fifty minims*; on the 2d, to *seventy minims*; and on the 3d, to *two drachms*; which dose was continued until the night of the 6th, when he died.

There was but slight alteration in the man's condition throughout the days enumerated; the leading feature in the case, was rigidity of the muscles, and this rigidity permanent: the alternate increase of contraction and relaxation, which constitute the spasms or convulsions of acute tetanus, were not observable. The recti muscles of the abdomen were, on every occasion that we saw the patient, in a fixed state of contraction; so that the abdomen, to use a familiar illustration, was as hard as a board. On the two evenings preceding the man's death, he became very delirious; the laudanum did not produce any remarkable anodyne effect. The jaws were sufficiently relaxed to allow of nutriment being given, and deglution was not materially impeded.

Post Mortem Examination.

The body was examined about forty-eight hours after death, by Dr. Hodgkin. The only morbid appearance detected, was in the spinal marrow. The cineritious matter throughout the greater part of the cervical portion of the spinal medulla, was much softer than natural; and this was more particularly observed in the right lateral column. We say much softer than natural, because the texture was not so much broken down as to constitute that alteration in the substance termed "ramollissement," although decidedly altered from its healthy and natural appearance.

ST. THOMAS'S HOSPITAL.

CASE 2. *Tetanus occurring on the seventeenth day after a lacerated wound of the toes; successfully treated by Mr. Tyrrell.*—A boy, 15 years of age, was admitted into the Hospital on the 6th of September, under the care of Mr. Tyrrell, on account of laceration of the three outer toes, produced by the wheel of a wagon having passed over the foot. Poultices were applied in the first instance, and subsequently, the wounds being in a healthy granulating condition, were dressed with strips of soap plaster; they were healing fast, and the boy was in every respect doing well, until the 22d, that is, sixteen days after admission. At this time he complained of stiffness at the back of the neck, pain in the throat, and difficulty of swallowing; the jaws could only be separated to a short distance. Six grains of calomel were given, a blister put at the nape of the neck, and a poultice applied to the wound of the toes. On the 23d, the expression of countenance was more indicative of tetanus, although the boy had less pain in the neck: the abdominal muscles were rigid. The calomel had acted once or twice only upon the bowels; the blister had risen. Half an ounce of the oil of turpentine was prescribed to be taken for a dose.

In the evening, it was found that very free and copious evacuations from the bowels had been produced by the turpentine; the fæces were dark-coloured and scybalous. Three grains of calomel, with one grain of opium, ordered to be taken at bed time.

On the 24th, the third day of the existence of tetanic symptoms, the pulse was 106, it having previously been much less quick, it was also somewhat sharp in its beat; the abdominal muscles were rigid, the boy could open his mouth to a short distance. There was slight discharge from the wound, and it was rather thin. A dose of caster-oil was prescribed, the calomel and opium continued.

On the 25th, the patient was better; the caster oil and pills were repeated. On the 27th, there was marked improvement in the tetanic symptoms; the patient complained of great pain in his mouth, and it was evident that the calomel had produced ptyalism.

On the 28th, the boy had much pain and tenderness at the pit of the stomach; a blister was applied to this part, and a grain of calomel only, with a grain of opium, given at bed time. There was still preternatural rigidity of the muscles, although in a much less degree. On the 29th, the calomel was omitted. From this period the symptoms gradually subsided; the wound went on favourably, and the lad was eventually discharged from the Hospital, quite well.

ST. GEORGE'S HOSPITAL.

CASE OF FRACTURE OF THE ILIUM.

A WOMAN, upwards of 70 years of age, was admitted into this Hospital on Saturday the 10th instant, under the care of Mr. Robert Keate, on account of severe injury, occasioned from her having been knocked down and run over by a cabriolet. On examination there was found to be a fracture of the whole length of the crista of the right ilium: there was also a transverse fracture of this broken portion, thus dividing it into two; and in the surrounding soft parts there was considerable swelling, resulting from the extravasation of blood. The nature of the accident was very apparent, crepitus being

readily detected. It is perhaps worthy of notice that the motions of the limb were performed with tolerable freedom. The patient was placed in bed, with no particular attention to position, and with no kind of bandage: cold lotion, simply, applied to the part. The poor woman remained without any further means being adopted, and in fact, it would seem, without the nature of the accident being understood, until Monday, when Mr. Keate saw the case. After a *profound* investigation, in which Mr. K. was materially assisted by the *tactus eruditus* of Mr. Rose, it was at length discovered, that there was a fracture of the ilium. Mr. Keate directed a bandage to be applied around the pelvis, and as a further means we presume of keeping the parts in a quiescent state, ordered *a dose of purgative medicine*,—salts and senna.

On the following day, Tuesday, the patient became very uneasy: the respiration was difficult and painful, and she expired about seven o'clock in the evening; no further means having been employed.

The body was examined on the following day, and a fracture of the ilium was found to exist, of the nature we have described. The fourth, fifth, and sixth true ribs of the right side were now discovered to have been fractured near to their angles, and one of them had wounded the pleura costalis. *The injury to the ribs was not ascertained during the life of the patient!* The lungs, more especially on the right side, were gorged with black blood: there were about two teaspoonfuls of serous fluid in each lateral ventricle of the brain.

MR. KEATE'S TREATMENT OF INFLAMED BURSÆ.

As an instance of the "sound chirurgical" practice of Mr. Robert Keate, we may mention the following treatment of an inflamed bursa.

The patient, a young woman, in Princess Ward, has been in the Hospital for several weeks, on account of inflammation and effusion in the bursa of the patella, and various means have been had recourse to without much benefit.

On the 12th instant we found, upon examining the part, *that it was exquisitely tender on pressure:* the integuments were inflamed, and there was considerable tumefaction. Mr. Keate saw and examined the patient in this condition, when she shrunk from the slightest touch; yet in this exquisitely tender condition of the parts he directed eight ounces of blood to be abstracted, *by means of cupping*! It is scarcely necesary to say, that the poor girl could not bear the application of the cupping glass: it occasioned the most excruciating agony. A galbanum plaster (judicious enough, to an inflamed skin) was directed to be applied over the swelling; and still further important, a splint was put behind the joint.—Oh! Hospital of Wonders!

AMPUTATION OF THE THIGH, BY MR. JEFFREYS.

This operation was performed on Thursday, the 15th, on account of extensive disease of the knee joint. The patient, a young man, of scrofulous diathesis, had been an inmate of Prince's Ward for several months past. He was first admitted on account of cachectic sores of the foot: subsequently inflammation and suppuration of the bursa patellæ took place: the bursal cyst was not opened, but to borrow the felicitous expression of Mr. Jeffreys "was allowed to break of itself." Hence arose an extensive diseased surface, with great constitutional disturbance, and ultimately inflammation and suppuration within the cavity of the joint. It is important to remember, that all these circumstances occurred in the Hospital: that the disease about and in the joint had its origin, and pursued its uncontrolled progress, under the *care* of Mr. Jeffreys.

At the time of the operation, the patient was in an exceedingly emaciated condition, the discharge from the joint having been very profuse for a considerable time.

With respect to the steps of the operation—we may truly say, *nil admirari*. The first incision was not carried round the limb, by *one* stroke of the knife, and the subsequent cut, or rather *cuts*, through the muscles, were very awkwardly performed. There was much venous hæmorrhage: five or six ligatures were applied to the arteries.

The joint, when cut into, showed most extensive disease: destruction of the ligaments, absorption of cartilage, and ulceration of the extremities of the bones.

The patient died on the 21st, that is, on the sixth day after the operation.

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Green	0	3	0
Cumming	0	5	0
Carror	0	5	0
Brown	0	5	0
F.	0	5	0
Rutherford	0	5	0
Dr. M'Crae, Edinburgh	0	5	0
Bruce	0	5	0
Lubbock	0	5	0
Mr. Horsfall and his Pupils:—			
Mr. Horsfall, Wakefield, Yorkshire	1	1	0
W. Rowlandson	0	7	0
E. Horsfall	0	7	0
M. Preston	0	7	0
Mr R. W. Milner, pupil at Messrs. B. and E. Walker's	0	10	6
Mr. Ross	0	5	0
Per John Latham, Esq. Wigan:—			
Dr. Caunce, Wigan	0	10	0
Pemberton, ditto	0	10	6
Stuart, ditto	0	10	6
Mr. Croft, ditto	0	10	6
Morris, ditto	0	10	6
Rogerson, ditto	0	10	6
Latham, ditto	0	10	6
Hawett, ditto	0	10	6
Fisher, ditto	0	10	6
Rawlinson, ditto	0	10	6
Smith, ditto	0	10	6
Swift, ditto	0	10	6
Burdon, ditto	0	10	6
Glassbrook, ditto	0	10	6
H. Jephson, Esq. Leamington	1	1	0
Worcestershire Medical and Surgical Society, per Dr. Hastings	10	10	0
R. J. Peck, Esq. Newmarket	0	12	0
Dr. Armstrong, London	1	1	0
W. Gaitskill, Esq. Paradise-str. Rotherhithe	1	0	0
George Dernott, Esq. Pulteney-street	1	0	0
J. C.	0	2	6
— Hugo, Esq. Crediton, Devon	0	10	0
— Battishall, Esq. Springton, ditto	0	10	0
G. W. Wood, jun. Esq. Somers-Billinghurst, Sussex	0	5	0
Edward M'Dowell, Esq. Dublin	1	0	0
Dr. Barlow, Bath	1	0	0
William Mee, Esq. East Retford	1	0	0

	£.	s.	d.
G. R. Skene, Esq. Jermyn-street	1	1	0
Per T. Waterhouse, Esq:—			
Arnold J. Knight, M.D., Sheffield	1	1	0
Corden Thomas, M.D. ditto	1	1	0
Charles Timm, M.D. ditto	1	1	0
Mr. Stainforth, sen. ditto	1	1	0
Waterhouse, ditto	1	1	0
William Jackson, ditto	0	10	6
Overard, ditto	0	10	6
Reedal, ditto	0	10	6
Ray, ditto	0	10	6
Turton, ditto	0	10	6
Holland, ditto	0	10	6
Wright	0	10	6
Carr, ditto	0	10	6
Eadon, ditto	0	10	6
Pupils.			
Mr. Henry Thomas, ditto	0	5	0
John Risdon Bennett, ditto	0	5	0
Green, ditto	0	5	0
Knowlton Wilson, ditto	0	5	0
Per — Braithwaite, Esq.			
Dr. Birch Lye, Hereford	1	0	0
Hughes, ditto	0	10	0
Mr. Griffiths, ditto	1	0	0
Beavan, ditto	1	0	0
Cam, ditto	0	10	0
Pateshall, ditto	0	10	0
John Griffiths, ditto	0	10	0
Eyre, ditto	0	10	0
Price, ditto	0	10	0
Braithwaite, ditto	0	10	0
Jennings, student, ditto	0	2	6
Cookesley, student, ditto	0	2	6
— Lovell, Esq. Sawbridgeworth	0	10	0
J. Loudon, M.D., Pernambuco, Brazils	0	5	0
Dr. Gilby, Wakefield, Yorkshire	0	10	0
— Dawson, Esq. surgeon, ditto	0	10	0
Dr. C. J. Fox, Margate	1	1	0
— Shaw, Esq. Workworth, Derby	0	10	0
— Cantrell, Esq. ditto	0	5	0
— Gervis, Esq. Ashburton	0	10	0
The Medical Society at Hexham, per their Secretary Robert Stokoe, Esq.	2	2	0
William Day, Isleworth	1	1	0
Mr. Bryant Donkin, 80, Great Surrey-st.	1	0	0
Jas. Tomlinson, Esq. Maldon, Essex	1	0	0
Messrs. Baker and May, ditto	2	0	0
Mr. Thomas Salt, pupil to ditto	0	5	0
Mr. Henry Baker, ditto	0	5	0
George King, Esq. Bath	0	10	0
— Bryant, Esq. 30, Edgware-road	0	10	0
Pupils at the Borough Schools, by Mr. E. Halse:—			
Mr. E. Halse	0	10	0
William Hewitt	0	5	0
A. Thorpe	0	5	0
John Hazell	0	5	0
J. M. Lister	0	10	0
J. Edinborough	0	10	0
A. Edinborough	0	10	0
J. Fry	0	10	0
Per John Hewson, Esq. Lincoln:—			
Mr. R. Bousfield, Surgeon, Lincoln	0	5	0
F. P. Charlsworth, M.D. ditto	1	0	0
Mr. F. E. Franklyn ditto	0	5	0
E. B. Drury, (not med.) ditto	0	5	0
Sulton Harvey ditto	0	10	6
John Hewson ditto	0	10	6
T. Fawset, pupil of ditto	0	5	0
F. A. Sayles, dentist ditto	0	5	0
Tuke (not medical) ditto	0	5	0
The Publisher of THE LANCET	0	10	0

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